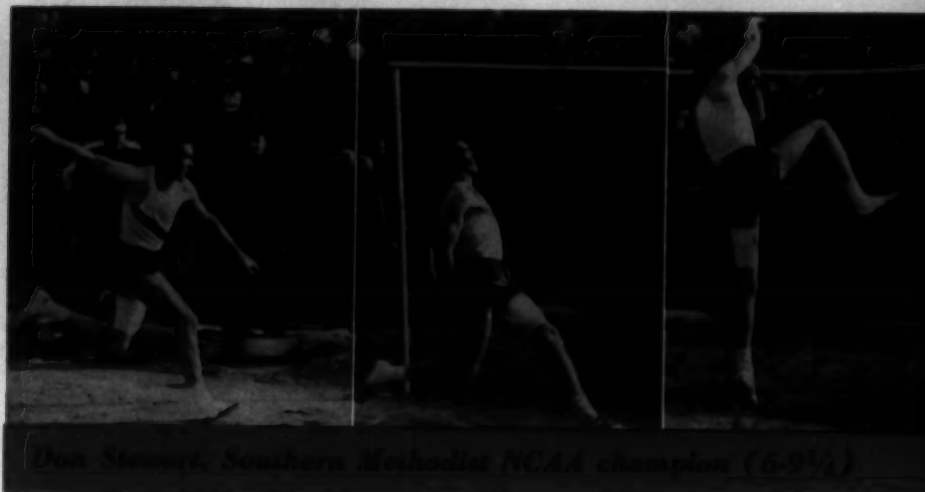


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of the
helmet

that's

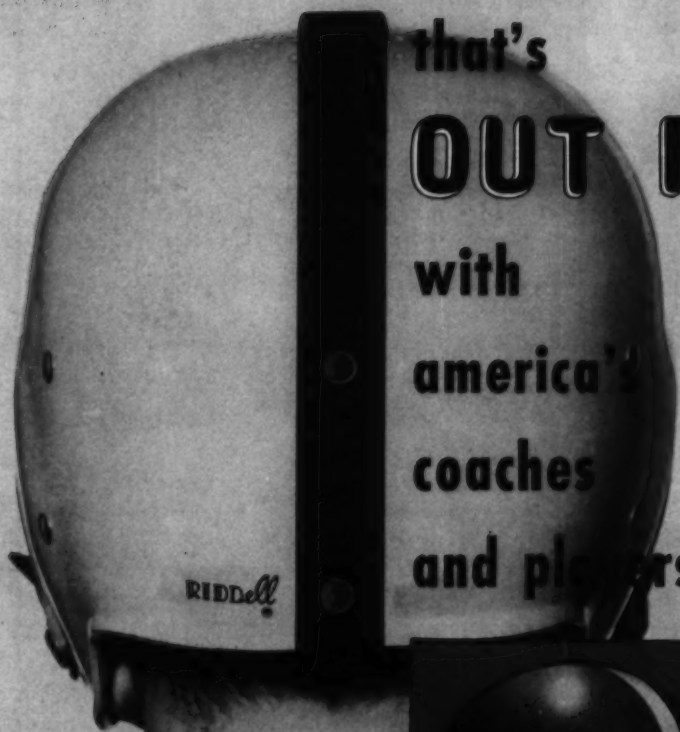
OUT FRONT

with

america's

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and players

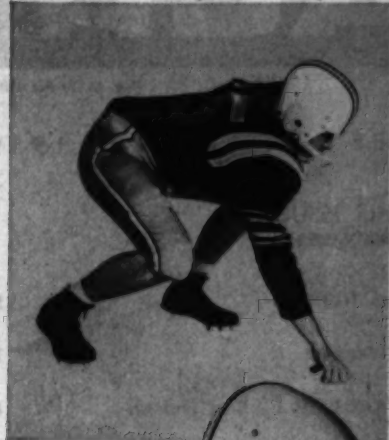


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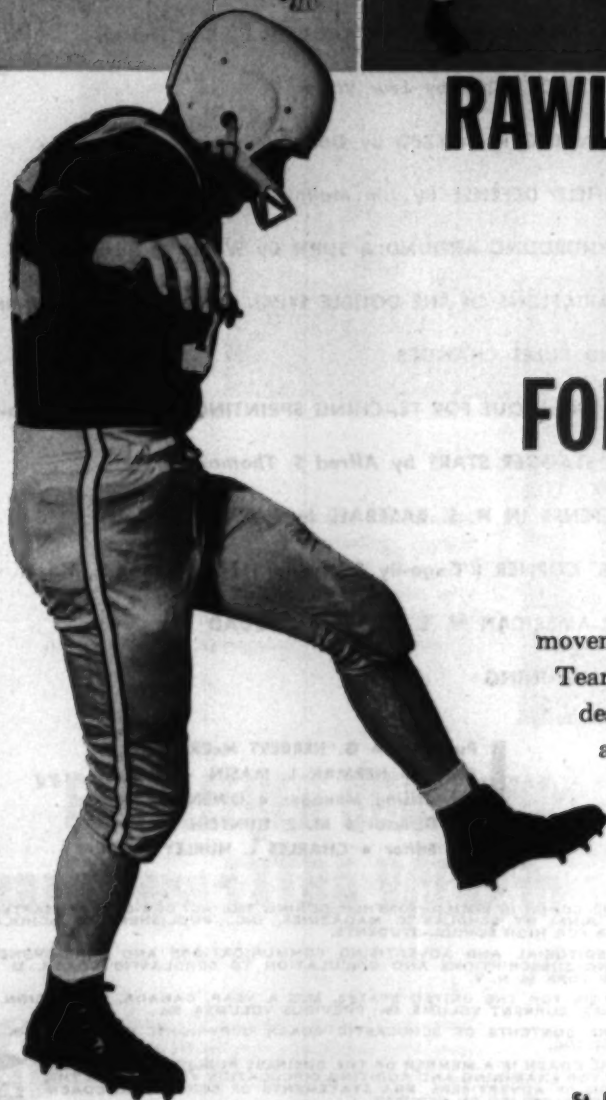
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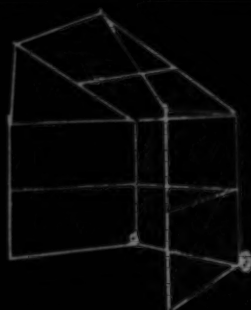
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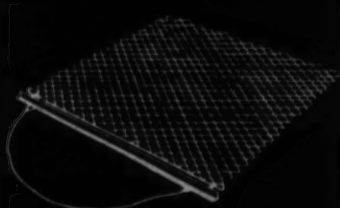
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VOLUME 28 • NUMBER 6 • FEBRUARY 1959

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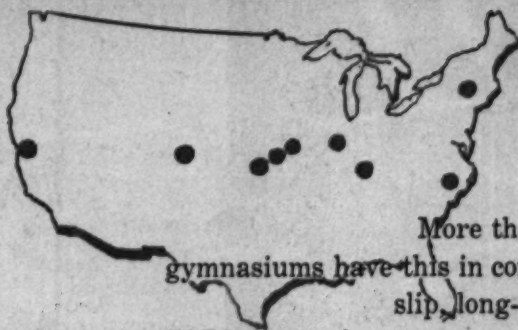


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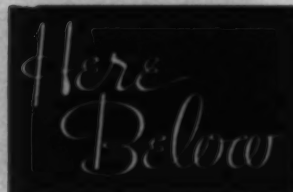


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A bum rap for the Trojans

OUR sympathy and friendship have always been extended to the NCAA. All in all, they've faced up squarely to their responsibilities and have done a pretty good job of policing the college sports beat.

On one count, however, their performance leaves much to be desired. And that's in regard to recruiting excesses.

Our colleges have done wonders in elevating academic standards, tightening eligibility rules, etc. But nearly all of them cheat a little in their recruiting. Where the competition for talent is razor-sharp and where so many people—coaches, alumni, friends, and others—have their fingers in the pie, cheating may be inevitable.

The NCAA, being neither stupid nor naive, are aware of this. But, having no police force, they're incapable of dealing with it. They depend upon informers for tips, then, after investigation, they mete out punishment.

Such justice, predicated as it is upon a non-existent police system, isn't always fair. It doesn't always temper justice with mercy or let the punishment fit the crime.

The NCAA's latest action is a perfect case in point. We refer to their bludgeoning of the University of Southern California for infractions of the recruiting code.

What were the Trojans' alleged crimes? Two things. In one instance they were accused of paying extra traveling expenses to an athlete. In the other they were alleged to have paid an athlete's way to a junior college and promised him a grant-in-aid despite any injury he might suffer playing jaycee ball.

For this the Trojans were put on two years probation—excluding them from any potential TV revenue and from competing in any NCAA championship meets until 1960.

There were mitigating circumstances in both cases, which the

NCAA never investigated. But let's assume the Trojans were guilty. Did such picayune "crimes" merit such severe punishment? With all the block-busting excesses being committed on all fronts, with all the slimy under-cover deals rampant from coast to coast, how could the NCAA blackjack the Trojans so cruelly?

Remember, this wasn't a football foundry. This was a university that had just cleaned house and installed a sound, wholesome foundation under its athletic structure, that had literally deloused itself of all taint of recruitment excesses.

We're not talking through our helmet. We happen to know the USC setup from cellar to attic, having spent two summers on the campus. We're privileged to call Coach Don Clark and his assistants friends. And from hours of discussion, of observing them in action, of casing the athletic offices, of watching them recruit, we can safely say this:

Southern California operates one of the cleanest, most above-board recruitment systems in the country, one that compares favorably with any major-college system extant.

We know all about the suspicions that hover over USC. It's common knowledge that a slew of behemoths have been beating a path to the Trojan gates, and a lot of people can't believe that their way hasn't been strewn with roses—and other inducements.

But the fact remains that the recruitment is being done *within* the rules, *without* phoney deals; that it's being effected by first-rate organization, imagination, and intense drive. If these are crimes, then the Trojans are guilty.

That's why it's so depressing to find the NCAA wielding their truncheons so indiscriminately. With so many rascals running around loose, it's positively painful to see the "cops" hounding the innocent.

"SEE, we told you so," could well be the title of this little editorial. Back in June 1956, we whistled a warning about "the growing popularity of foreign importations on American varsities . . . particularly in swimming and track . . . the circumstances are decidedly suspicious. There are just too many of these star athletes floating (and running) around."

"We're curious to know how much of this is educational and how much is high-class proselytism."

That tocsin, sounded in this corner, found its echo 18 months later (December 1958) in a Big Ten resolution to bar all aliens from the NCAA and AAU championships.

We concur with the resolution's "whip," Charles (Rut) Walter, Northwestern coach, when he says:

"It has gotten to be a joke the way some coaches are going out and recruiting overseas. Some schools actually are recruiting as much in foreign countries as they are here. We are training boys who will come back and beat us in the Olympics."

"And don't think the other countries are not being irritated by our recruiting. They are burning up about it."

"It used to be that an occasional boy would come to this country on his own, or as an exchange student, and attend school. That was fine. But this hard-nose rushing deal is all wrong and the majority of coaches in this country think so."

THE ridiculous tradition of "dying for dear old Rutgers" is deadlier than the hula hoop. And a good thing, too. The gridiron is too cold and public a place to die on. But, more important, no player should even think of continuing to bang heads after suffering a "mortal wound."

Too many kids, weaned on Frank Merriwell, refuse to quit a game
(Continued on page 38)



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TOO many baseball coaches believe that you can't really teach a boy how to hit, and thus hesitate to tamper with anyone's style—letting the batter "do what comes naturally." That perhaps is one of the chief reasons why the average high school pitcher is well ahead of the average high school batter, and accounts in part for the phenomenal records being compiled by school-boy hurlers.

To bridge the gap between pitcher and batter, the high school coach must assume a more positive role in the teaching of hitting.

TAKING TOO MANY PITCHES

In our observation of high school batters, the greatest fault we've noticed is taking too many good pitches. It would appear that the hitters are looking for a free ride rather than swinging freely.

One thing is certain: when a batter is looking for a walk, he's admitting that he lacks confidence in his hitting ability.

No other factor is more important in successful batting. Great hitters like DiMaggio, Musial, and Williams will attest to that fact. When they stepped up to the plate, they truly believed they were going to hit safely—putting the psychological onus on the pitcher.

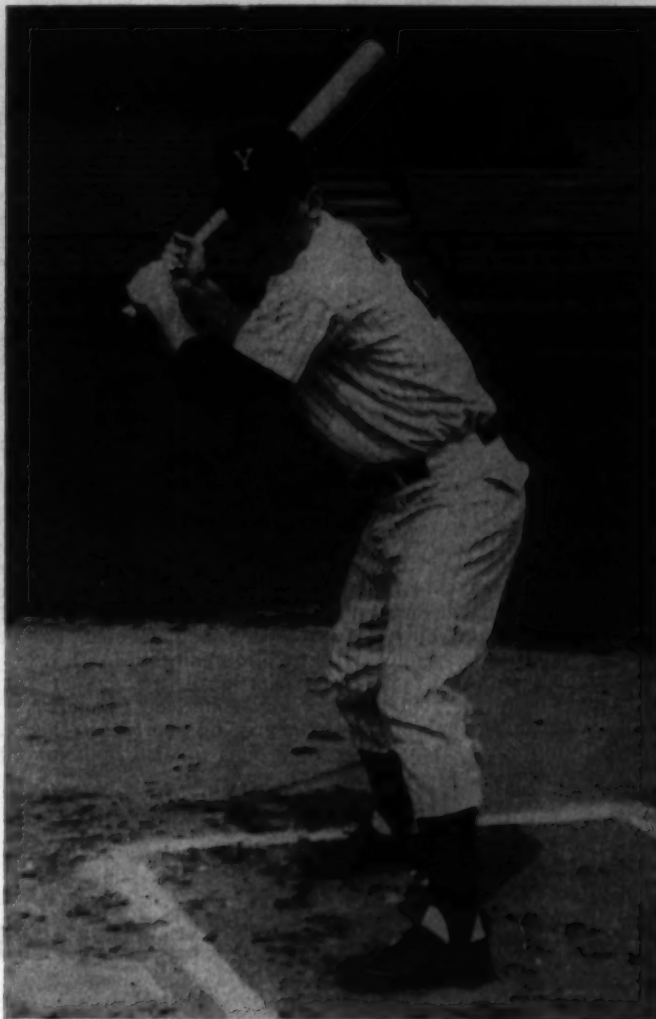
The only way to really build confidence is through practice, practice, and more practice. However, the big danger lies in allowing the hitter to practice a bad habit.

For example, if a batter is stepping into the bucket and, as a result, can't hit the outside pitch, he should be told of the disadvantages of such a habit and instructed how to take a more skillful step. While some great hitters, such as Al Simmons, a member of the Hall of Fame, have been bucket-steppers, it's wise for young players to avoid this habit.

BASIC STANCE

The coach must be extremely careful in attempting to change a batter's stance against his wishes. Since most teen-agers are sensitive to criticism, the coach may be met

(Continued on page 61)



Good stance with body slightly crouched, feet comfortably spread toward rear of box, shoulders level, arms away from body, weight distributed, eyes on ball, bat a bit choked.

Teach Them to HIT!

By MICHAEL RAUSEO, Springfield (Mass.) Trade High School

By BERT NELSON

YURI STEPANOV, world record holder at 7'1 $\frac{1}{8}$ ", is of considerable interest to the high jump fraternity for a number of reasons:

1. There's much controversy over the official approval of his world record. When set at Leningrad in 1957, the record was said to have been made with the aid of the new built-up shoe. But when it became apparent the IAAF was going to ban the shoe, the Russians said Yuri had no artificial aid. They insisted his record be approved, and it was.

2. Special shoe or no, Stepanov is one fine jumper. He proved that last summer when he defeated Charley Dumas in the USA vs. USSR meet. The Russian cleared 6'11 $\frac{1}{2}$ ", a mark bettered only by Dumas (7'3") and Walt Davis (6'11 $\frac{1}{2}$ ") with ordinary shoes. And Stepanov did it with the newly legalized half-inch sole, not the inch or more build-up that was used so widely in Europe in 1957.

3. While Stepanov's jumping style isn't radically different, his training

is. In the U.S., high jumpers have, for the most part, led the softest of athletic lives, training only lightly and exerting a minimum of effort between meets. Stepanov, on the other hand, thrives on the application of the rather radical theory (in high jumping) that hard work is the key to success.

Stepanov also differs from U.S. jumpers in that he achieved success rather late in life; and as the first non-U.S. world record holder in 50 years, he deserves to be studied with care.

Born August 1, 1932, Yuri was 25 when he set his world mark. He weighed 185 pounds, stood 6'1 $\frac{1}{2}$ " (and thus is one of the few men to jump more than a foot over his head). As a schoolboy, he had achieved success in skiing, once was considered a very good volleyball player, and devoted considerable time to gymnastics.

Not until the age of 20, when many American jumpers are about to give up sport for other careers, did Yuri turn to high jumping. He

managed only 6'7 $\frac{1}{2}$ " that first year (1952), a height which would have left him letterless at more than one California high school. But he persevered, and this is one of the keys to his success.

In 1953 Stepanov jumped 6'4 $\frac{3}{4}$ ", and the next year made it to 6'6", as well as placing fifth in the European championships.

All this time he was using the antiquated scissors and Eastern cut-off forms (best of 6'6"), and kept with them through 1955 when he finally reached 6'7 $\frac{1}{2}$ " (scissors). After becoming one of the very few Russians to better 6'6 $\frac{3}{4}$ " (in Europe, a significant two meters), Yuri switched to the belly-roll or straddle.

By the time he became world record holder, he had moved on to the "dive straddle." Meanwhile, he had given up his first field events—the broad jump, in which he had achieved 24'4 $\frac{1}{2}$ ", and the hop-step-jump, in which he had reached about 49'.

Early success in the long jump and triple jump indicated an ex-

Yuri Stepanov, 7'1 $\frac{1}{8}$ " Dive

The Record Jump in Pictures

By PAVEL GOIKHMAN, Russian Coach

IN THIS picture sequence of the world record jump, Stepanov's run-up is at an angle of 45-40° from the right and consists of 8 running steps. The last 4 steps are the fastest and are done in a rocking motion from heel to toe, which facilitates the take-off. The body is bent forward while running, gradually straightens and becomes vertical in relation to the swing leg just before the last step (No. 1).

On the push-off, Stepanov puts his leg out straight. As soon as the heel touches the ground, the foot rests on the full sole. By this time, the push-off leg and body occupy a minimum angle of incline in relation to the ground (No. 2).

The position of the center of gravity at the moment of touching the ground, as far away and low as possible in relation to the take-off point, helps to gain greater distance and power in movement. This distinguishes Yuri from other jumpers. His arms, particularly the

right, move in a radius forward and up, thus helping the swing action of his leg (No. 3).

At the end of the push-off, the athlete finishes his movement along his running line (No. 4). This also distinguishes Stepanov from bellyroll jumpers who, at the end of the take-off, turn their face and chest in the direction of the bar.

Stepanov avoids this basic error by the way he uses his push-off leg without a preliminary turn of the shoulders to the side, and by the rocking motion of the push-off foot and the full employment of its strength to send the body upward. At this moment, many jumpers turn their foot with the toe outward. Unable to rid themselves of this mistake, they begin to believe it's a natural jumping technique. The swing leg, sharply straightening out at the knee, reaches the horizontal line straight.

In the period of flight (No. 5), Yuri actively attacks the bar with his swing leg and arm along the running line. It's important that the head shouldn't turn toward the bar and help the "entrance" on it, as if completing a corkscrew move, forward and along the bar.

ceptional amount of spring. With broad shoulders and long, strong legs, Stepanov was deemed the high jump type and was persuaded to concentrate on this event.

Influential in this decision was Coach Pavel Goikhman. The latter first spotted Yuri as a young army athlete, and noted not only Stepanov's physical assets, but a considerable degree of will-power and persistence.

Both these factors were to be put to the test in the long drive toward the top. As is usual in Russia, a long term plan was laid out. For Stepanov, it called for his best jumping to come seven or eight years after his 1952 beginning. Thus it is that Coach Goikhman feels we haven't seen the ultimate leap yet.

According to Goikhman, Stepanov's advance was "filled with constant search, and errors and setbacks at times. Many young novices could learn from Yuri how to be persevering and purposeful and how to build a will to win."

By orienting on gaining the maxi-

mum results in the distant future, and not on separate achievements and competitions, it was possible for Yuri to practice steadily and not get upset. Year-round regular training was scheduled, including gymnastics, skiing, basketball, and weight-lifting as well as various track and field events. These sports weren't scheduled in an abstract way, but in connection with the special training program.

He practiced indoors in winter, outdoors in summer. Often he would row for hours at a time, building shoulder and arm muscles. Work-outs on gymnastics apparatus helped develop coordination. Holding a weight of about 150 pounds, Yuri squatted many times, thus strengthening leg muscles. He has worked out for as long as an hour on the Swedish ladder, similar to a ballerina at the bar, swinging his lead-off leg 400 times in a row. This, naturally, developed a powerful kick.

Stepanov jumps a great deal. He
(Continued on page 48)

Straddler

At the end of the flight, the athlete lies flat above the bar, having used to the utmost the strength of the push-off to lift the body up, and occupying the initial position for the continuation of the corkscrew movement, but now with the legs (No. 6). By straightening out his push-off leg and simultaneously turning the toe outward, Stepanov excludes the possibility of the body touching the bar on its way down.





Courtesy of Ethan Allen

DELIVERY BY BOB PORTERFIELD

The former major league star demonstrates the relaxed, loose, yet powerful delivery that characterizes pitching at its best. His long stride (directly toward the plate)

and fine balance furnish the leverage that enables him to "pour" it on. Particularly noteworthy is how his head remains fixed on the target from start to finish.

By LEW WATTS

Former Pitcher, Chicago White Sox Organization

Pitching Mechanics

MANY qualities, both physical and mental, contribute toward the making of a polished performer on the mound. Physical ability and the development thereof, plus knowledge of the hitters, poise, confidence, the desire to win, and courage are the most important ones.

The basic objective of every pitcher should be to capitalize to the utmost on his physical equipment. This involves not only the acquisition of a sound tactical background and the development of a good operational method, but learning to put all his mechanical ability to effective use in the actual throwing of the ball. In short, learning to pitch includes the development of maximum stuff within the limits of a man's physical capabilities.

Size and power, although a great asset to any pitcher—particularly in regard to endurance and sustained stuff—aren't the predominant factors in enabling a man to throw hard and to break-off a good curve ball. Men of short stature, slight build, and moderate strength have possessed exceptional stuff.

To a great extent, this is due to the fact that muscular control, as it relates to pitching, involves every part of the body—fingers, wrist, arm, and legs, as well as the entire physical being. What these men have developed is the knack of putting something on the ball without exerting maximum effort.

The key to this mastery of ideal pitching coordination is relaxation. It not only enables a man to get maximum stuff on the ball, but allows him to conserve his strength and to call on that something extra in a tight spot.

BALANCE

Good balance is absolutely essential to a pitcher from the time he takes his stance on the rubber until the follow-through is completed. A slight imbalance at any point in the pitching motion is magnified greatly in the full sequence of movement and in the re-

sultant effect on the course and action of a pitched ball.

To test his balance, a pitcher should wind up, rear back with his striding foot in the air, and then hold the position on one leg for several seconds. When this can be done consistently with good equilibrium, he can be reasonably sure that his balance is proper at the start of the delivery and will, in most cases, carry through to the end of his motion.

STANCE

The basic stance for a pitcher finds him squarely facing the batter. The front spike of the pivot foot should be over the edge of the rubber. This foot should be angled toward his throwing side to facilitate the pivot and help get the body behind the throw. The striding foot should be a few inches behind the rubber, the weight forward, the body fairly erect, the shoulders level, and the ball hidden from the batter.

With men on base the same principles apply but the stance is a side-ward one. The pivot foot can be angled along the inside of the rubber or placed as in the basic stance. The striding foot should be forward, with the toe in slightly open position. The runner should be watched out of the corner of the eye.

PUMP AND PIVOT

The pump serves a two-fold purpose. It loosens and relaxes the arm and shoulder muscles and helps get the weight into the pitch. It should be performed above the throwing shoulder so that the arms and hands never actually cross the face and obscure the view of home plate.

At the start of the wind-up, the weight should shift forward—after an initial backward step on the striding foot. This is a "gathering of the weight" for increased power. The entire action can be likened to a pendulum.

"Reaching way back" is one extreme of the pendulum-like motion which ends in the follow-through. It's the more important one since speed or stuff cannot be added to the ball after it is released. "Reaching way back" provides the explosive charge which actually propels the ball.

As the arms come up in the pump,

the weight should shift back. Here, the pivot begins with the pivot foot sliding diagonally forward and the body turning toward the throwing side. The eyes should remain fixed on the target and the kick should be moderate since an exaggerated one will destroy balance.

A relatively short, well-controlled pivot, emanating from a slightly open stance, and the elimination of excessive body action will make for improved control without impairing the power which can be imparted to the throw. The pendulum-like motion should follow a direct line between home plate and the pitcher.

STRIDE

The stride should not be exaggerated. As the arm swings back, the striding foot comes straight forward and hits the ground relatively flat (not on the heel since this ruins balance), with the toe pointed directly at the target. The arm comes through as the body drives hard off the pivot foot. This push-off is vital in producing power.

The arm should start forward as the foot hits the ground and the stride should be completed before the top point of the delivery is reached. It's not until this point that the wrist-snap should take place.

The pitch should be made against the front leg, which should be slightly bent to prevent the jarring effect which can interrupt the smooth flow of motion. The striding foot should land about six inches to the side of a line directly toward home plate (left side for right-hander and vice versa). This prevents "throwing across the body" which causes a loss of power and possible sore arm.

"Throwing one's glove" at the batter while striding aids in bringing the body weight into the pitch and adds deception to the delivery since the motion of the glove can prove a distraction to the batter.

DELIVERY

There are three types of deliveries—overhand, three-quarters, and side-arm. Practically all pitchers use one of these styles and some employ a com-

(Continued on page 58)

Broad-Jumping Analyzed

By **DON CANHAM**, Track Coach, University of Michigan

FOR YEARS, coaches have taught that "great" broad jumpers must be "great" sprinters. Yet at least four of America's 26-foot broad jumpers were not great sprinters.

George Brown of U.C.L.A., John Bennett of Marquette, Greg Bell of Indiana, and Ernie Shelby of Kansas couldn't be classified as outstanding sprinters. They became world class jumpers because they specialized in the event and perfected all the details of technique.

If there's anything new in broad jumping, it's the practical contribution made by these and other recent jumpers to prove that physical requirements are wide and varied. George Brown was tall and thin, Bell and Bennett short and slight, while Jesse Owens was of medium height and build.

Speed, of course, is not a handicap, and the next world record holder might well be a great sprinter. While we now realize that blinding speed isn't essential in jumping over 26 feet, we must recognize that average sprinting speed is a certain requirement for almost any championship performance.

In addition, a lightness of foot called "bounce" or "spring" is evident in all good leapers, for the ability to convert the forward momentum to vertical height off the board is essential to even fair broad jumping.

In addition to these physical requirements, all broad jumpers must have determination, courage, analytical ability and plain patience. As in any complicated technique, success doesn't come quickly. The world's finest jumpers have all been 22 years of age or over, and some like Bennett and Bell didn't attain

their peak until the age of 25 years—after literally thousands of jumps.

In teaching, coaching, and understanding the broad jump, we must consider six different areas from the first step to landing. The wise coach and athlete will master each area in turn and through work and concentration mold the phases together in one continuous well-executed action of performance. These areas are:

1. Initial relaxation.
2. Smooth acceleration during the "run-up" to the board.
3. Settling before the board.
4. Foot plant and take-off.
5. Leg and body position in flight.
6. Leg extension and landing.

FIRST STRIDES

In dealing with each area in turn, we must start as the athlete first steps on the runway. One of the most neglected phases of jumping is the failure to consider and analyze what the first few strides of the jumper's approach can mean to his actual effort.

The entire tone and rhythm of the jump is often determined as the athlete starts, just as the preliminary swing of the discus determines the speed and rhythm with which the thrower will turn and release the discus.

The broad jumper who grits his teeth, sets his jaw, and swears he'll leap out of the stadium usually is so tense upon reaching the board that he has no chance of hitting his checkmarks and less chance of taking advantage of his actual jumping potential at the board.

So, without the slightest doubt, we must emphasize and constantly watch to see that the initial effort is determined but not tense. One method of getting an athlete "away" relaxed is to have him "fall off" his first checkmark into his first step. In short, a

relaxed loss of balance into the first stride—and not a hard driving, fist clenching first step.

THE ACTUAL RUN

From our indoor sprinting marks, we can readily realize that even the top sprinters cannot accelerate to full speed in less than 40 yards, and some cannot do so at that distance. It would then appear that the runs of our jumping champions should exceed 40 yards or 120 feet, and that's exactly the case.

Steel, Bennett, Bell, and almost any other 26 foot jumper will use an ap-



GREG BELL (26-6½)

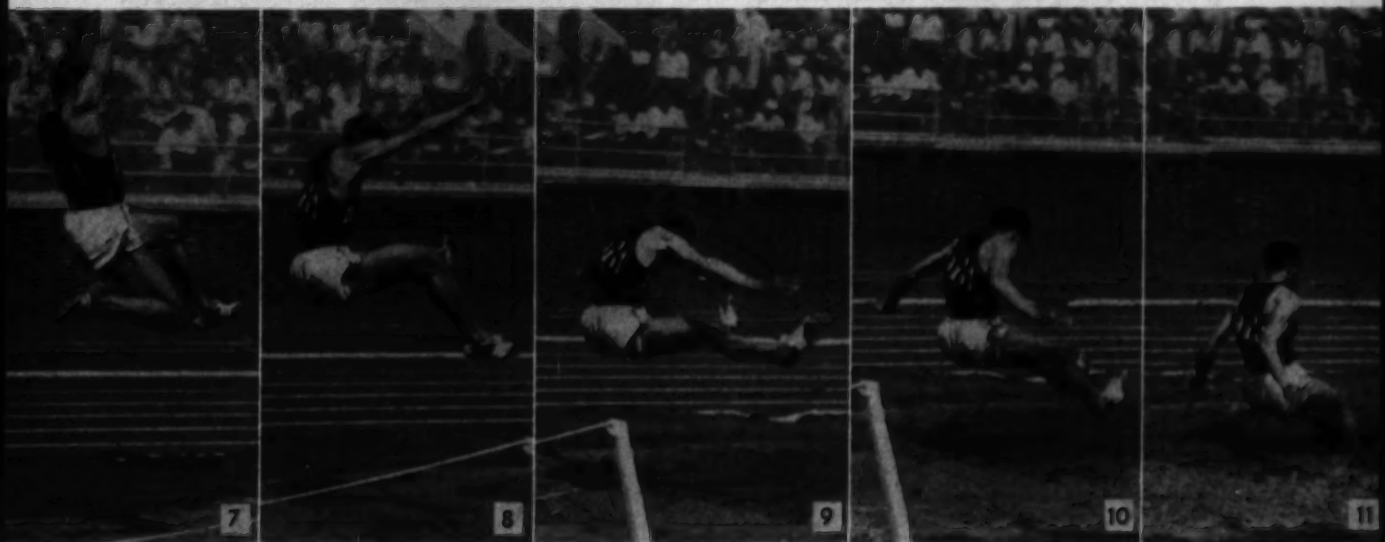
*Perfect Exemplification of
Step Style of Broad Jumping*





(1) foot planted slightly ahead of the center of gravity; (2) excellent lift of the left shoulder and right knee as he jumps up, not out, from the board; (3) extension of right leg

into the step; (4) drawing up of left leg and erect trunk in the flight; (5) the athlete is now stepping on the imaginary box with his right foot.



(6) the left leg coming through and forward as he jumps from the imaginary box; (7) both legs swinging forward; (8) legs being extended; (9) perfect leg extension; (10) feet

coming together so they'll be about 8 inches apart when athlete hits the pit; (11) the athlete preparing to flex knees, drop head, and shoot over his feet.

proach of 125 feet or over. Some like Steel exceed 140 feet, and it's probable that the great jumpers of the future will approach from even greater distances as they attempt to apply more and more momentum to the run. Today, even our high school athletes are using runs of 110 feet and more.

Regardless of the distance to be covered in the run, however, the athlete should use a minimum of two check-marks. He stands on the first at the head of the runway, and the other he "checks out on" (hits) a minimum of 45 feet and a maximum of 60 feet from the take-off board.

Where excessively long runs are used, three check-marks are often employed. With a run of 130 feet, for instance, the jumper might have his second check mark at 90 feet and his third 45 feet from the toe board.

It's entirely possible that when all our jumping is done from consistent asphalt runways similar to those at Penn State, Ohio State, Purdue, and Michigan, our jumpers will drop to only one check-mark in short runs or two check-marks during the excessively long run-ups.

Presently, where runways differ in consistency and condition from meet

to meet, it seems more practical to use a maximum rather than a minimum number of check-marks.

While there's no secret in locating accurate check-marks, there is a simple and effective formula. With the athlete standing on a mark roughly 110 feet from the toe board and the spotter 50 feet from the board, the athlete "falls" from his mark.

His first step should be taken with his take-off foot, as he must think in terms of that foot for first step, for hitting check-marks, and for take-off. Alternating of the feet at these various points only confuses.

Once he starts toward the second check-mark, he attempts to build up as much speed as possible in the 60 feet to the spotter. The athlete can slow up and stop after passing the spotter, for during this stage of step determination we're only concerned in finding where his left foot lands after 60 feet of all-out approach.

The athlete takes this preliminary approach several times a day over a period of several days; and on each run-through, the take-off foot landing about 60 feet from the first check-mark is marked. Obviously, then, the second check-mark is determined by taking the average of all the take-off foot landings in front of the spotter.

In this manner, a constant uniform run between two check-marks can definitely be determined. It's then a simple matter to lift up both check-marks and move them the same distance forward or backward that's necessary to place the athlete on the board once he starts his full run-through.

While this method is widely used and is simple and direct, two observations must be made. First, it isn't possible to determine any step pattern by any method unless the athlete is in

"sprinting fit" condition. A poorly conditioned athlete cannot run with a uniform stride time after time without a good amount of basic running prior to step location work.

Second, though the run between the first two check-marks will no doubt be satisfactory on the surface they were originally plotted upon, it goes without saying that adjustments must often be made on other runways at other meets due to varying conditions. These adjustments should be kept to a minimum as confidence in any step plan can only be gained through a minimum of change.

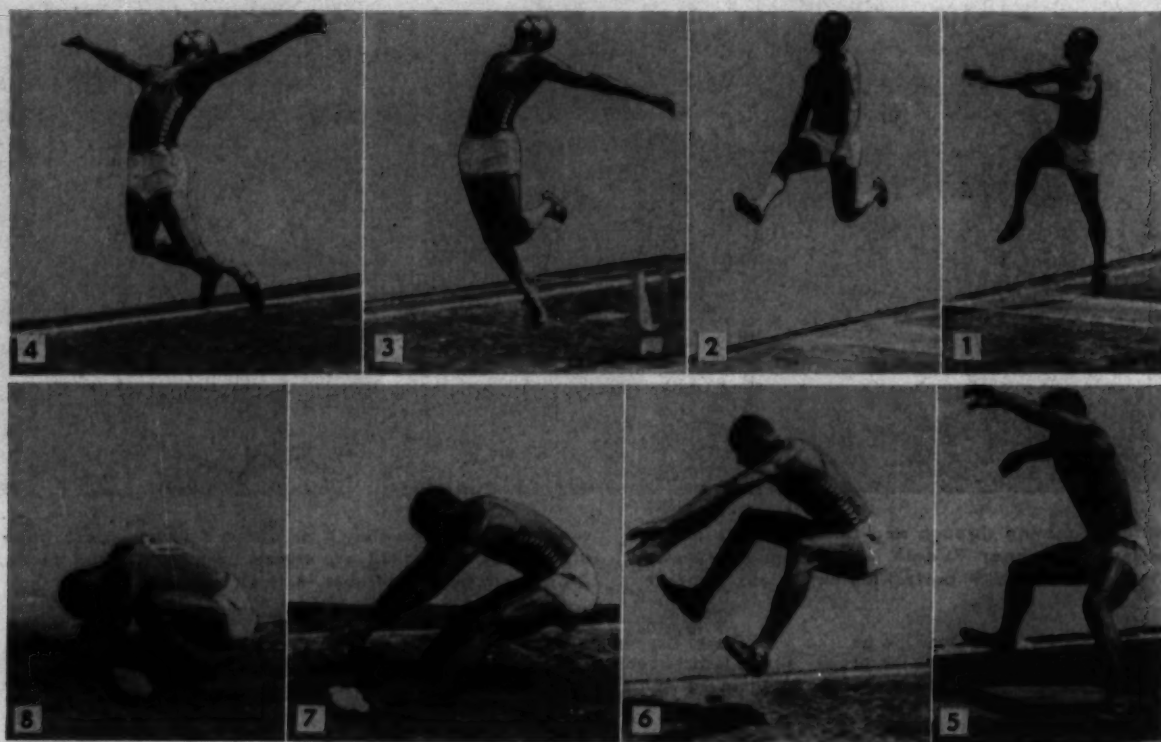
Once the steps have been accurately determined and measured, the athlete mustn't run through or jump in practice or competition without having taken a thorough warmup and without having measured his steps with a steel tape and marked the exact spot with a scratch on the ground or a peg along the side.

Some coaches advocate the counting of strides between the check-marks to make the athletes more conscious of hitting those marks. Most American coaches, however, feel this practice detracts from the more important concentration on relaxation, speed and competitive effort.

Once the athlete is "check-mark sure," he can more easily concentrate on the actual function of the run. Quite simply, the approach to the board should be one of acceleration, or building up of velocity, and maintaining it until the foot plant and take-off lifting action helps convert part of this forward momentum into vertical height.

Several things contribute to acceleration and, more important, to maintaining and using it properly. Many men can move down the runway with great speed. Some, however, get so tense concentrating on speed that the actual effort off the board is dismal. The ideal approach is one that's relaxed with the body nearly erect to keep the trunk adjustment just prior to foot-plant at a minimum.

The athlete, however, must have generated the greatest amount of momentum he can use effectively by the time he has reached the second check-mark, that is, in the neighborhood of 50 feet from the board. From that point on, the relaxed maintenance of that speed and the concentration on the actual jumping effort must take precedence over any effort to increase momentum.



EULACE PEACOCK (26-3)

Perfect Exemplification of Hang Style of Jumping

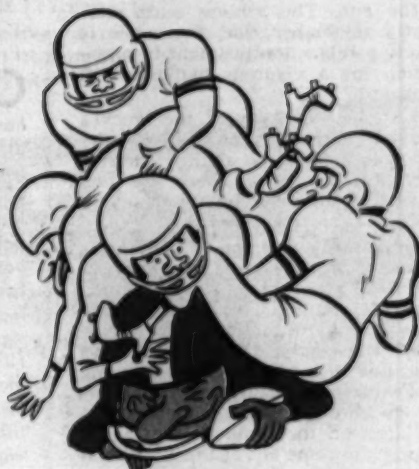
(1) drive is up, not out; (2) fine height attained by an almost vertical lift off board, made possible by a great lift of right leg and upward drive of chest; (3) arching the back and dropping the legs to hang in mid-air; (4)

perfect relaxed hang position; (5) near end of the flight, flexed knees and drawing legs forward in preparation for the landing; (6) legs still coming forward and feet coming closer together—8 inches; (7) legs extended for those last few inches in landing; (8) getting over the feet, flexed knees, chin dropped to chest, and the back bent forward—with the athlete perfectly relaxed.

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SETTLE

A slight adjustment, mental and physical, must be made about four strides before the board is reached. In a sense, the athlete "gathers" himself for the actual jumping effort. But a more correct mental picture is obtained of what he actually does when we refer to the action as "settle."

In the settling action, the jumper relaxes and drops slightly lower on the balls of his feet than he has been during the sprint action of his approach. With this slight dropping down, the jumper's trunk also assumes a little more erect position, placing him at a more advantageous angle for foot plant and vertical take-off.

This relaxed settling action must never result in loss of forward momentum. In actuality, with great jumpers, the floating last four strides result in increased speed at the end of the run. The athlete must constantly remember that the settle is merely a relaxed adjustment in preparation for a vigorous explosion off the board.

In studies of many of the world's greatest jumpers, it's obvious that the last two strides are slightly shorter than previous ones. There are two reasons for this.

First, men preparing for a leap subconsciously attempt to keep their center of gravity over the take-off foot. People who've done even a minimum of jumping have soon realized that a long, stretching, last stride places the center of gravity too far back, and a much too great checking of the forward momentum is the result. In addition, a tremendous strain is placed on the jumper's legs as he attempts to come out of this unnatural position, which often results in injury at take-off.

Second, the last two strides are shorter because in even the most simple springing action the knee must be bent to drive up from. A long-reaching last stride results in a straight and in some cases a locked knee, which, of course, cannot deliver any vertical force to the jump.

It appears that far too much time and effort are given to determining how much the last strides should be shortened, for it varies with each jumper. In actual practice, the jumper's body angle during the "settling" action is the best regulator for optimum shortening of the steps.

Jumpers who do not settle, and thus bring their body angle to a more erect position, without exception shorten up too much as they mentally prepare for the leap. Thus, the problem is usually not one of trying to get the jumper to shorten stride, but more often just the opposite. In most cases, jumpers shorten up too much. Therefore, the erect trunk during the run and certainly during the settle becomes of primary importance.

Where we find jumpers dropping off more than 6 inches on their last stride, we can usually remedy the situation by having him use a more

erect body angle and thus a slightly longer stride.

Another technique during the "settle" is "hip drop," or the lowering of the center of gravity just prior to foot plant. Telling the athlete to "crouch," "drop the hips," or "bend the take-off knee" can only detract from his concentration on the actual jumping effort, and shouldn't be done.

A jumper, by the time he has reached the board, should be thinking of only one thing—and that's the "lifting action" that will give him height. It's like telling a high jumper to "drop low" just before he attempts to generate all his energy in a vertical leap—an absolutely futile suggestion.

Any study of broad jumping pictures shows that just prior to foot plant the hips actually do drop. This, however, isn't a conscious effort on the part of the jumper. Rather it's a result of other things correctly done.

ONE of the country's track-coaching titans, Don Canham is the brains behind the U. of Michigan team that has won five Big Ten crowns in the past 10 years. The Wolverine mentor is also President of the National Collegiate Track Coaches Assn., has written five books on the sport, has made six trips to Europe and Africa on coaching assignments, owns "Champions on Film," the world's largest sports movie outfit, and has been an invaluable Scholastic Coach contributor since 1951—contributing eight articles in all. No. 9 and No. 10 (next month) comprise one of the finest series of broad-jumping articles ever to see print.

The actual dropping down off the high toes during "settle," the erect and then slight backward trunk angle just prior to foot plant, and the slightly shorter last strides with the resulting bent knee are the causes of necessary and effective "hip drop." A magic word or two said to a jumper won't solve the problem.

FOOT PLANT AND TAKE OFF

The actual foot plant at the board isn't a vigorous "stamp" as is so often advocated. In fact the use of the term "stamp" should be eliminated from the track coach's vocabulary, for the action isn't a stamp but rather a heel-ball-toe roll-up as the athlete springs from the ground.

Jumpers who attempt to "stamp" or "pound" the board at take-off invariably do so with a tense, contracted leg. This destroys all chance for a relaxed flexing at the knee and prevents capitalization of the quick extension that comes from a relaxed muscle. The plant is a firm relaxed placement

of the foot—toes pointing directly forward at the board—heel first.

To further assist in converting some of the forward momentum to vertical height, the previously mentioned slight back body lean takes place as the heel comes down. The center of gravity is now behind the board at heel plant. It will, however, move directly over the take-off foot as the knee flexes and the jumper's body continues to go forward.

Then, just before the jumper leaves the ground, the center of gravity will move out in front of the board. As the center of gravity moves forward, the athlete coordinates the lifting action of virtually all of the body with the extension of the take-off leg ankle and toes.

From the time the rock-up action of the foot starts, the athlete must concentrate all his energy and effort on driving the chin, chest, arms, and free leg as high into the air as possible. In addition, the jumper's head and eyes turn up at the same time.

As the foot is on and over the board just a split-second, it should be obvious how little adjustment an athlete can make during that particular stage. It's only through weeks and months of work that the ability to attain maximum vertical height off the board during this split-second is possible.

The secret of great jumpers lies in the countless hours they've put in during practice taking "pop-up" using a short 30 or 40 foot run. The lifting action when done so many times with a short non-fatiguing run becomes mechanical and is often perfectly executed when a full run is used in competition.

BODY POSITION IN FLIGHT

It has been said so many times that form in the air or a particular style is primarily advantageous for "aerial balance." This is quite true, but form or body position in the air should serve the athlete in a much more practical fashion.

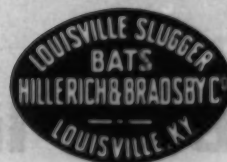
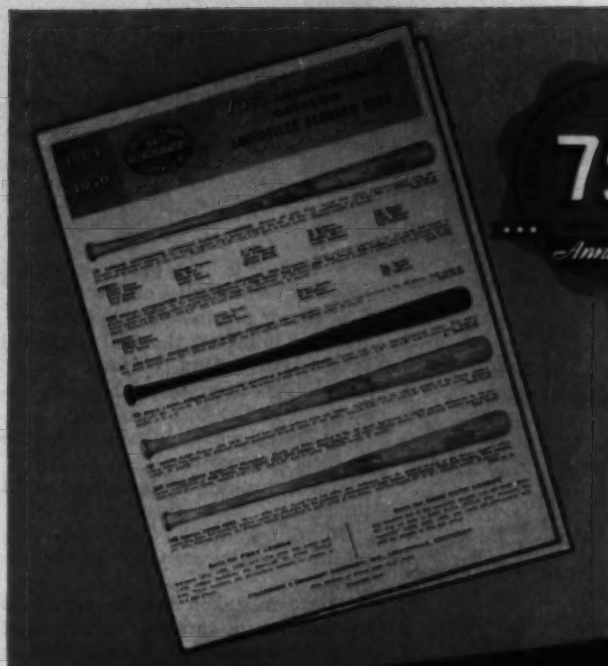
Body position after take-off is of value in proportion to the extent to which it enables a man to get his legs up and forward prior to landing. Some athletes find they're able to do this more easily and more effectively with one style than with another.

While we see a multitude of jumping styles each year, there are really only four established and basically sound methods: (1) the Tuck, (2) the Hang, (3) the Step, and (4) the Hitch Kick.

THE TUCK STYLE

The most simple but probably least efficient method of jumping is called The Tuck Style. In this style, the jumper after take-off merely draws the trailing leg up to the kicking leg and sails through the air in a ball with legs tucked under the body. Just prior to landing, both legs are swung

(Continued on page 46)



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Basic Infield Defense

By JIM MALLORY

Coach, East Carolina College (Greenville, N. C.)

BASIC stance is the first consideration in any technical discussion of general infield play. And in this regard, let it be said immediately: The player with a rigid wrist can never become an infielder. His wrist must be loose and supple, and he must have keen eyes and be capable of quick, sure foot movements.

The infielder should assume a crouched stance with legs comfortably straight, the feet parallel, toes pointed straight ahead, and the knees bent slightly. To stay relaxed and loose, many infielders are constantly bending over and picking up imaginary pebbles.

As the ball is pitched, the weight should be transferred to the balls of the feet and the player should lean forward.

In fielding ground balls, the legs should be in approximately the normal walking position, with the weight on the balls of the feet and the knees bent, not rigid. The body should be kept *low*, particularly the tail, and the ball should be caught opposite the front foot. As the player catches the ball, his body should "give" a little.

The infielder may block hard-hit ground balls in one of two ways: One is similar to the outfielder, with the right knee on the ground next to the left foot, which is angled out slightly. (Opposite for a left-hand man.) The other way is to field the ball with the heels together.

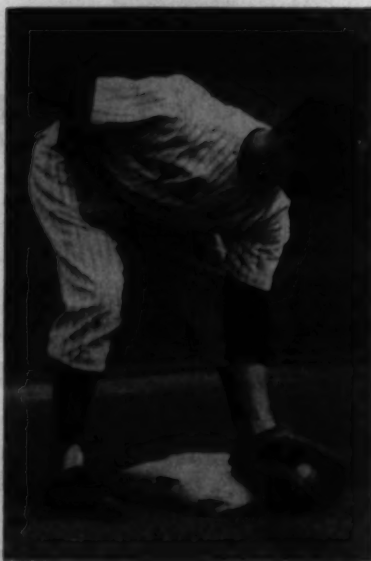
One of the cardinal rules in infielding is to always play the ball in front as much as possible. Keep the glove as close as possible to the ground on all balls hit toward you. Of all the faults, this fault of not staying low, and of carrying the glove high, is the most common.

Remember, it's much quicker and lots easier to come up for the bad hop than to try to bend quickly on the ball which doesn't bounce.

Never cross your legs, and be able to throw from the position in which the ball is fielded. With two out, never make a long throw if a short throw will suffice.

Listed below are a few of the common mistakes made in fielding ground balls:

1. Taking the eyes off the ball. The fundamental rule of all sports is: *keep your eye on the ball*.
2. Glove isn't held close to the ground.
3. Knees aren't bent; thus body weight isn't forward or down.
4. Tail is too high.



Making the tag by straddling the bag and letting runner slide into ball.

5. Weight is back on the heels instead of on the balls of the feet.

6. Hands are too close to the body. By that is meant the ball is fielded between or behind the feet.

7. Ball is brought to the body instead of to the throwing side.

8. The glove and bare hand are in incorrect position.

9. Not thinking a play ahead at all times.

10. Catching the ball and then taking an extra step before throwing.

These mistakes can be remedied by making the infielder conscious of what is wrong and getting him to work on his mistakes.

TAGGING RUNNERS

In tagging out runners, the infielder can use one of two methods.

In the first, he keeps both feet on the ground as firmly as possible with the bag between his feet—not blocking the side of the bag into which the runner will slide.

The ball is firmly held in the glove and the glove is put on this side of the base, so that the runner actually "tags himself out." Tag the man with a sweeping motion of the glove. Don't leave the glove stationary. This is an invitation to injury and getting the ball kicked out of the glove.

The second method of tagging runners is executed as follows: As soon as the runner breaks in an effort to steal second, the man designated to cover the base breaks with him. It's impossible for the fielder to remain in his position to discern whether or not the ball will be hit and then get to second base in time.

The infielder should stand in front of the base, partially facing first base. In this position, he can field almost any type of throw. If the throw from the catcher is short, he should go up to get it and then come back for the tag.

Once he catches the ball, he holds it firmly in his glove hand and brings the ball directly in front of the base. The runner will "tag himself out."

There are three depths at which the infield can play—deep, medium,

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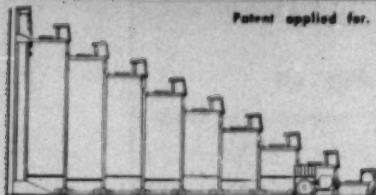
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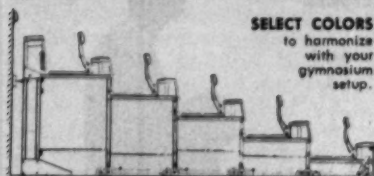
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or shallow. Some coaches prefer the words back, halfway, or close. They're the same. The score, inning, number of outs, and men on base will usually determine the depth.

Generally speaking, the infield should always be played deep during the first part of the game. The only time the infield should be played shallow is when the tying or winning run is on third base late in the game.

In other words, whenever you cannot afford to give away a run, play the infield in the shallow position. The best two reasons for not playing the infield shallow during the early innings are:

1. An ordinary double-play ball will often go for a hit and many "pop" flies will fall as singles. With the infield deep, they become easy outs.

2. A .250 hitter becomes a .350 hitter with the infield in the shallow position. Therefore, only play the infield in the shallow position during the late innings when you cannot afford to give away a run.

It's often good baseball to play the third baseman and first baseman in the medium or shallow position with the bases loaded; even if it's early in the game. The batter will usually determine this. There are many ways to make the double play from this position.

For example: on a ball hit to the left of the third baseman or to the right of the first baseman, the double play would go to second, then back to first.

On a ball hit directly at the third or first baseman, when in the medium or shallow position, the double play would be home to first. On a ball to the third baseman's right or first baseman's left, they could step on the bag and throw home. In this instance, the runner would have to be tagged out.

If the runner on third is exceptionally fast and has a good break toward home, the third baseman could throw the ball to first, and the first baseman could throw to second.

The third baseman has to play fairly shallow, as long as the possibility of a bunt exists. When this situation no longer exists, the third baseman can play in the normal position. It's not sound baseball for the first or the third baseman to guard the line unless the batter is a rank pull hitter and you want to cut down the extra base hit. The other situation would be when you have an important run at first that must be kept from scoring.

With a runner on first, the second baseman has to help protect the big hole between first and second. On

the hit-and-run play the second baseman should always switch with the shortstop in covering second.

This is essentially a guessing game. The shortstop and second baseman should mix it up so that the defense doesn't become stereotyped. The shortstop and the second baseman can watch the batter's feet and automatically switch when his feet switch from the bunt to the hit and run.

Even in the late innings with your team leading by one run (particularly if you're the home team), with one man out it's better to move the third baseman and first baseman in and leave the shortstop and second baseman back for the double play. With a very weak batter up (pitcher), the infield would have to move in for the force at home or the squeeze.

The infield should only be played medium during the middle innings when you don't want to give away a run, with a runner on first and third or the bases loaded.

In this position, the play can be made home or the double play tried for. With a good hitter up, play either deep or shallow. Also play the infield in the medium position during the late innings when the batter isn't very fast and the runner is.

In summing up general infield play, the following generalizations can be made:

1. The deep position is used with no one on base, with two outs, or with an important run on second base.
2. The medium position is used for the double play, steal situations, or weak batters.
3. The shallow position is used only when the defense cannot afford to give away a run. This is usually during the late innings of a ball game.

BASIC DRILLS

1. Pair the infielders up, have them roll the ball to each other. Check the stance and form of each.

2. Put the infield in the field. Call out situations and have the infield play accordingly (deep, shallow, medium). Hit ground balls to the infield and watch reaction.

Examples:

1. Seventh inning, one man out, bases loaded, two runs ahead.
2. Ninth inning, one man out, runner on first base, score tied.
3. Ninth inning, one man out, runner on third base, score tied.
4. Eighth inning, one man out, runners on first and third, two runs ahead.



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220 LOW-HURDLING AROUND A TURN

MOST coaches I've talked to feel that the 220-yard low hurdles around a turn requires no special practice methods. I beg to differ. While straightaway low hurdling may present little challenge to the tall, gangly sprinter—Dave Sime is a perfect example—hurdling around a turn is another proposition. It requires a distinct technique for one to excel.

I feel that many of the outstanding sprinters and hurdlers who've run this race have done so without any clearcut knowledge of essential technique. Such great sprinter-hurdlers as Harrison Dillard (23.0), Ancil Robinson (23.2), and Glenn Davis (23.3), one of the strongest hurdler-quartermilers of all time, should have put the time of this race out of reach. Yet none ever broke 23.0.

I believe all of them were capable of doing it in the low 22's without much difficulty, inasmuch as they could run 21.0 or better on the flat.

In this paper, I'll try to present some ideas on the subject which

should help any one coaching the event.

First in importance is the necessity of having the elements of force and balance working for and not against your efforts to run fast on the turn. The left-footed hurdler has a distinct advantage in this respect. He naturally leans into the turn with the lead leg in balance.

But I've noticed this about left-footed hurdlers: they have a tendency to take the barrier too high on the turns. This, I feel, helps reduce their power at the finish.

Right-footed hurdlers, on the other hand, have a marked disadvantage in that they have to bring the trailing leg into a balanced landing position before they can push off to their next running stride. Their inability to do this has often resulted in a deceleration of speed plus many nasty spills.

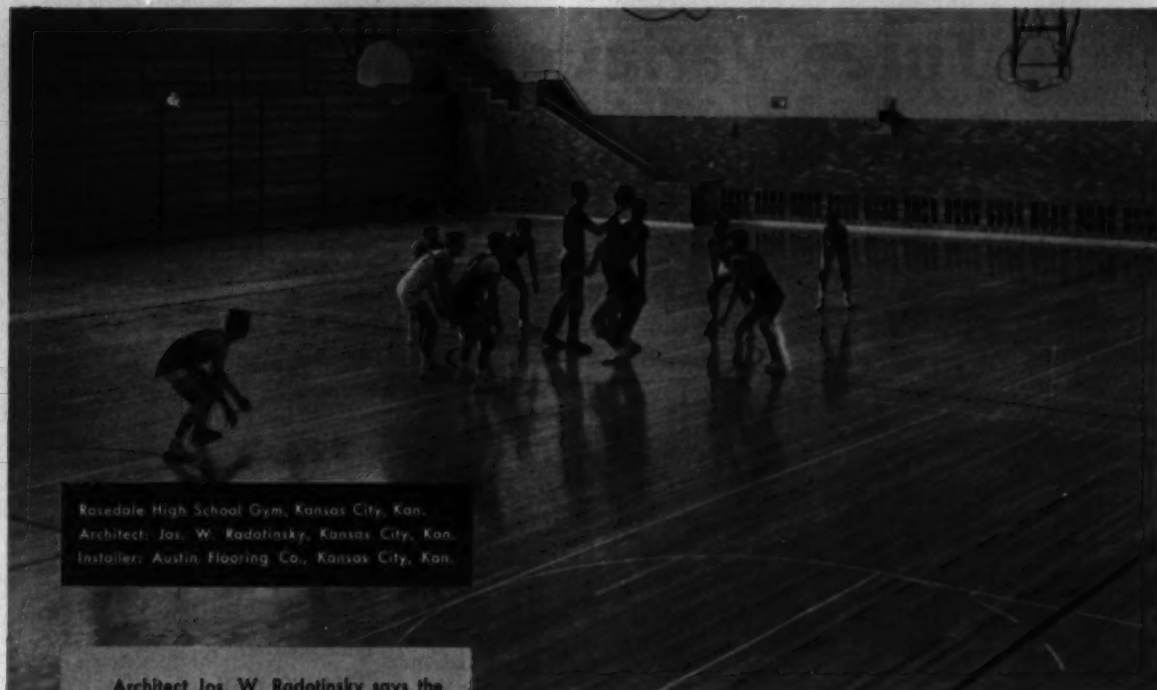
Be it as it may, the fact remains that all three of the world's sub-23.0 hurdlers are right-footed. That includes my two boys—Elias Gilbert
(Concluded on page 36)

Winston-Salem's Elias Gilbert, perhaps the world's top hurdler, demonstrating a 220-low hurdle around a turn.

By **WILBUR L. ROSS**

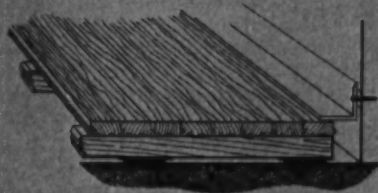
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Three Variations of the Double Steal

ONE of the plays with which we've enjoyed pretty fair success in recent years is the double steal with runners on first and third. Actually, we have three variations of this play, but more about the details of these later.

Our primary objective in calling this play is to score a run, and we're willing to sacrifice an out in the process. To achieve this goal, our task is to involve the defense in a run-down between first and second—permitting our man on third to score.

If the defense fails to take the "bait" and allows our man to go into second unchallenged, we still feel we've gained an advantage in that we've placed another man in scoring position.

One of our basic concerns, then, is how best to get the defense "involved" in the play. We've had most success here with starting our man from first before the pitch.

STEALING BEFORE THE PITCH

Few pitchers can resist the temptation to play a base-runner who starts for second while they're in their stretch. We coach our boy on first to take off any time after the pitcher has started his stretch, and to get off fast and far enough to force the pitcher to throw toward second to head him off. From this point on, his job is to stay "alive" long enough in the ensuing run-down to permit the man on third to score.

Our runner on third starts to edge off base as the man from first makes his break. If the pitcher fails to look back at third but turns and throws to second, we have our man on third take off at once for home.

In high school or college ball, there's a good chance of the play succeeding at this point since it will take two good throws (one of them long) and a tag to stop it. If the

pitcher throws well to second, the second baseman or shortstop might throw poorly to the plate.

Many high school and college second basemen aren't blessed with powerful arms, and more often than not they're involved in this particular play. It's a real trial for some of them to make the long throw home while moving toward second and away from their throw, as in this case.

If we're up against a pitcher with a little more "savvy" who steps back off the mound and freezes the man on third before throwing to second, we have a tougher play but still a good chance for success if certain things follow.

The play of our man on first remains unchanged in this situation, but now the primary burden of responsibility rests with the man on third. Again we have our man on third start his lead as his teammate breaks from first. However, after getting 4 to 6 feet from the bag, he holds his position until the pitcher commits himself.

If the pitcher throws to second, the runner on third edges a few feet closer to home since he can now afford a greater lead. The ball is farther from him. At this new position, he holds until certain things occur in the run-down between first and second.

Normally, we'd prefer to have a double exchange of throws in the run-down. If this occurs, we tell our boy on third to break for home just as the first baseman is tossing the ball back to the second baseman or shortstop as the case may be. With the fair lead which we hope he has established, he has an excellent chance to score.

Unforeseen things can happen on this play which will present other opportunities for the man on third to score. In a game a few years ago, the opposing pitcher stepped back

off the rubber and looked at third to hold our man there. Then he proceeded to run toward second with the ball, looking back over his shoulder at the man on third.

As the pitcher got about 15 feet from second, my boy on third broke for home and scored easily since the pitcher had a tough time recovering and making the long throw home while moving toward second.

On another occasion, we called this play as a relief pitcher entered the game. The situation proved too much for him and he balked, scoring our man from third and advancing the man on first.

It takes not only a sharp, well-poised pitcher to stop this play, but also a second base combination that's alert and can throw with strength and accuracy.

STEALING WITH THE PITCH

Of our three variations of the play, we use this the least. The runner on first takes off with the pitch, just as on a normal steal. If the catcher throws through to second without first looking our man on third back, we feel we can get a run.

If the play is called with two outs, the runner on first must remember that the run won't count if he goes into the tag at second before the player from third crosses the plate. Accordingly, we tell him to hold up before reaching second if he thinks the play will be close. Otherwise—if he gets a good jump on the pitcher or if the catcher gets his throw away poorly—we have him go directly into the bag.

Catchers with good arms can scarcely resist the temptation to throw to second on this play, particularly with two outs. I know of one young catcher who threw through in this situation without first looking at third. His throw was good and true but the base runner from first stopped dead about 10 feet from second, and before he could be tagged the runner from third scored with the only run of the game.

STEALING AFTER THE PITCH

When we encounter a pitcher with considerable poise, or a weak catcher, we like this form of double steal.

By **ROBERT T. KRETCHMAR**, Coach, Oberlin (Ohio) College

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We now try to place the defensive burden of responsibility with the catcher.

The man on first times his break at the moment the catcher is about to return the ball to the pitcher. If the catcher is caught by surprise and throws through to second without looking toward third, we can probably score. Or if the catcher throws to the pitcher who in turn throws to second, we have the makings of a successful play—if our man on third is alert. The play then follows the same pattern as earlier described.

CALLING THE PLAY

The ideal time to use this play is late in a close game, two outs, a weak hitter at the plate, and a fast runner on third. But I won't hesitate to use the play early in a game if it appears that the opposing pitcher is going to be tough and runs are going to be scarce.

Naturally I consider personnel—both offensive and defensive—before signaling for the play. Defensively, the key men are the pitcher, catcher, and second baseman. If any one of the three has an obvious weakness, we try to exploit it.

Offensively, I'm most concerned about my man on third, since he plays the major role. How sharp a baserunner is he? How is his speed? Most young teams will have some boys incapable of executing the play well. If such is the case, you're wise not to use the play with these men involved, even though other factors in the situation seem to make the play desirable.

Most high school teams will probably find it too difficult to use all three of the variations suggested. I'd recommend they employ only the first type—stealing as the pitcher is in his stretch. High school pitchers will have a tough time stopping this play, and I feel certain that a number of them will commit a balk in the process.

College teams may want to perfect these three plays over several seasons. I didn't try to install all of them in one year. We gradually worked into the three set-ups, with the older boys helping the new men.

PRACTICE SITUATIONS

During March, while the weather is still poor and we're indoors most of the time, we have a couple of blackboard sessions on these set-ups. I believe it's very important to have the boys fully understand what's involved in these plays so they can do some thinking for themselves when they're on base and the play is called.

When we get outside, we spend about a half hour a week drilling on these situations. I place my starting infield and battery on defense, and use the outfielders and utility infielders as base-runners. We station a runner on first and another on third, and signal for one of the three variations of the play.

The boys on defense have full opportunity to hear my comments and suggestions to the runners, thus gaining some instruction on their offensive responsibilities while practicing defense. After a while, we switch the boys around so all have a chance to work both ways. The boys soon get a pretty fair understanding of the play and its possibilities.

This practice is particularly good for our pitchers, who are the key to stopping the play when it's used against us.

I've found that my boys like to work this play, since it adds interest to the game. I find the boys looking forward to situations in the game when they can use the play. It's not only a team morale builder, but heads-up baseball.

1959 GRID RULES CHANGES

MAJOR changes in the NCAA football rules for 1959 include the following:

1. The goal post uprights will be placed 24' apart, instead of 19' 2" as at present.

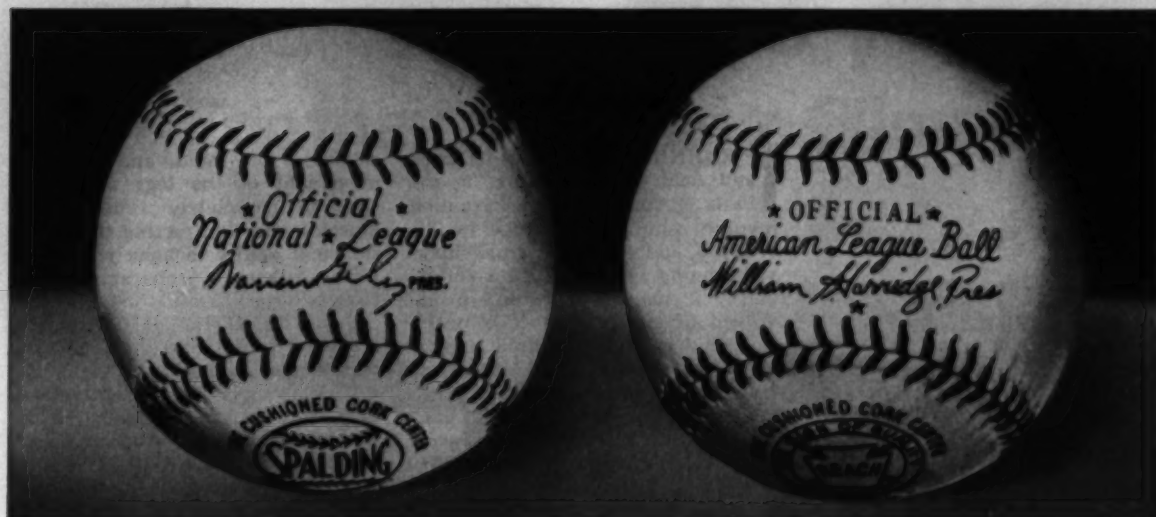
2. One man will be allowed to enter the game anytime the clock is stopped without having his entry counted against him. This means that whenever the clock is stopped, except during an excess time-out, one man and one man alone may be substituted—thus permitting a coach to insert a field goal kicker or other specialist and then remove him without penalty. If more than one substitute enters between downs, each sub shall be recorded.

3. Allowable time-outs will be increased from four to five for each half.

4. Distance penalties won't be greater than half the distance to the goal. For instance, if a penalty is levied against the defense on its 8-yard line, the ball can't be moved back more than the 4-yard line.

5. If a team successfully kicks the conversion but is fouled by the defense, it has the option of declining the point and accepting the ball on the 1½ yard line and trying again; or it may accept the point and take the yardage penalty at the next kick-off.

The committee also clarified the coverage on a defense player breaking into the neutral zone before the ball is passed and on blocking provisions for the hands and forearms to be kept close to the chest.



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Art Lewis, Head Coach, West Virginia University, says: "A coach is always shooting for perfection in performance. This improved J5-V shows me that Spalding has just about achieved it."

Russian Technique for Teaching Sprinting

By **B. SHCHENNIKOV**

*Instructor, P. F. Lesgaft Institute
Leningrad, Russia*

Translated by Dr. Katerina Ivanovna Zarudnaya-Singleton (Purdue University) from September "Light Athletics" published in Moscow

IF RUNNING is the basis of track and field, then sprinting is the basis of running. Sprint training involves running full speed for 60, 100, 200, and 400 meters, and interval running (4 x 100 m, 4 x 200 m, and 4 x 400 m). Sprinting is involved in many types of competition, and is of great significance in achieving results in all aspects of track and field.

Sprinting is peculiar in that each sprinter runs the race in a separate lane at a very high speed (up to 10 or 11 meters per second), which is developed mainly through a great frequency of steps (up to 4 or 5 per second).

With this characteristic is associated a high intensity of muscular contraction, the rapid formation of oxygen debt in the organism, and the short duration of running.

The technique of sprinting has much in common with the technique of running medium and long distances. But sprinting also possesses certain distinctive characteristics.

The sprint races are started from a crouch, enabling the athlete to develop a high initial speed more rapidly. The push-off from the track is executed from a sharper angle, while the sprinting movements are carried out in larger amplitude (longer steps), with more frequency (more steps), and, consequently, more energetically.

The foot is placed on the track, ball first, directly under the body's center of gravity, with each succeeding step in a backward sweeping motion, followed by the heel making firm contact and bearing full body weight as the athlete moves forward.

Despite the high intensity of muscular strain and frequency of movement, a good sprinter seems to run lightly and freely (smoothly). This is the result of alternating work and rest (contraction and relaxation) movements in running. The sprinter doesn't allow any superfluous (unnecessary) strain—this is the secret of masterful sprinting.

Training in the technique of sprinting may be approached only after the technique of running at medium speeds has been mastered.

An important prerequisite is excellent general physical condition. This includes the development of considerable muscular strength (particularly of the legs and body),

capacity for rapid and frequent movement of the legs and arms, skill in completely relaxing the muscles after contracting them, and sufficient agility in bone joints.

The following preparatory exercises are very useful for sprinters:

For STRENGTH: (1) Running and leaping, running up hill, running up stairs skipping one or two steps.

(2) Various jumping exercises, including broad jumping, triple and 5-step jumping from one spot, jumping on one leg. (3) Exercises with weights, deep knee bends with dumbbells (16 to 20 kg.) and deep knee bends with barbell (30-40 kg.).

For SPEED: (1) Running with small steps. (2) Running in place with rapid arm action. (3) Rapid running up and down stairs, stepping on each step.

For AGILITY: (1) Swinging free leg high in front and back. (2) Springy deep knee bends using exaggerated forward step with each. (3) Deep knee bends without lifting heels off the ground. (4) Bending forward, without bending legs at knees, touching hands to ground far behind heels.

For RELAXATION: (1) From standing position with hands above head extended, relax and go to deep knee bend squat position with body bent down. (2) Running motion with free leg while standing on gymnastic bench. (3) Lifting body with upward sweeping motions of free, relaxed arms.

In training on technique, it's first necessary to direct the attention of the athletes to mastering the new ways of exercise, giving them the correct idea of fast running with the aid of explanations, demonstrations, and movies.

The athletes themselves should be given an opportunity to run 50-60 meters from a crouch start, to convince them of the necessity of thorough study of the technique from the beginning throughout its parts.

The first practical problem of training is the mastery of sprinting a given distance along a straight line and around turns. For this, the following means are used:

1. Even speed running with increased speed for 50-80 meters.

2. Starting fast, accelerating for 40-50 meters until top speed is reached, and maintaining top speed for 20-40 meters.

3. Running at top speed downhill

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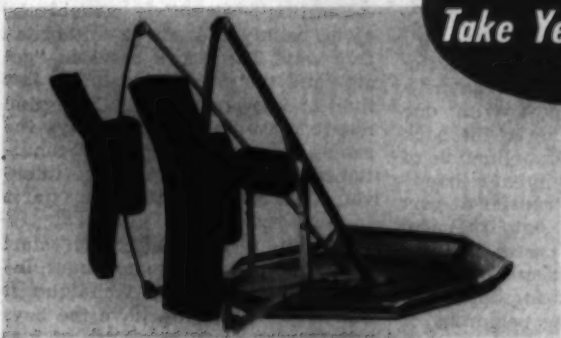
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or on special inclined path for 60, 80, and 100 meters.

4. Running downhill and, upon coming out of the incline, sprinting full speed on a horizontal path.

5. Repeated running of timed 30-meter intervals, with running start, checking running form.

During training, it's necessary to direct attention to the general technique: straight (perpendicular) position of body and head; soft placing of foot on track from toe-tip to heel in that sequence beneath body's center of gravity; complete straightening out (leverage) of push-off leg; and coordinated movement forward of the thigh of the swinging (recovery) leg; the smooth-evenness of good running form.

When speeding up, the athlete should increase speed gradually, retaining relaxed running form. Maximum speed running should be attained between 25 and 30 meters from the start. After running for a given distance at maximum speed, it's necessary to "switch-off" or discontinue the driving forward motion and coast or run by inertia, without special braking action, retaining good form until stopping and passing into walking.

When superfluous strain appears during acceleration of speed, the sprinter should lower his speed and pass into walking. When running at maximum speed, he mustn't hold his breath.

As the sprinter masters technique, he should increase his speed from the starts, and retain maximum speed over longer and longer distances. It's useful to do accelerated sprints with a group of 3 to 5 other athletes, to bring out the competitive element.

Accelerating from start to maximum speed should be done not only along the straightaways but also around turns, since half of the 200 to 400 meter races is around a turn. In running turns, run as closely as possible to the inside line marking the lane, without stepping on the line.

It's important to run counter-clockwise (as in competition) while training and also clockwise around turns. This permits equalization of the strain on the muscles of the right and left half of the body. Particular attention should be paid to coming out of the turn into a straight line, and entering the turn.

The time of running 30-meter repeated intervals from a running start is accomplished with the aid of a timer and a helper. The helper signals as the sprinter crosses the starting line, and the timer stops

the watch as the sprinter crosses the 30-meter mark. If a second helper is available, he should stand at the middle of the 30-meter running interval and count the number of double steps made by the sprinter with a backward arm motion (every movement of an arm corresponds to a double step).

With the length of the distance to be run given the value S , the time of running this distance t , and the number of steps N , one may calculate the average speed of running as U (average speed) equals $\frac{S}{t}$, the average frequency of steps (tempo) T equals $\frac{N}{t}$; and the average length of steps l equals $\frac{S}{N}$. Such data allow one to discern the progress in mastering technique and developing running qualities.

When the athlete is timed, he often strains unnecessarily. Because of this, the stopwatch shouldn't be used in the beginning stage of training. At least the sprinter shouldn't get excited about it.

The mastery of the crouch start is often a problem in the development of maximum initial speed. In the development of the start, the athlete should:

1. Sprint 25-30 meters from a standing start.
2. Sprint from a semi-crouch start with support of one arm.
3. Sprint from a crouch start using one starting block.
4. Group sprinting from crouch starts.
5. Timed 30-meter sprints from crouch starts.

SEMI-CROUCH START

In the semi-crouch start, the feet are placed the same as in a standing start: support with one hand (on the same side as the back leg), causing a great inclination of the body forward; a greater bending of the legs; and transfer of part of the body weight onto the arm (the line of weight passes in front of the feet). All this creates more favorable conditions for rapid increase of speed in the beginning of the run.

The starting blocks must be placed in such a way that the sprinter can assume a comfortable position, without superfluous strain, with a mechanical advantage for the generation of high speed during the first sprint steps.

Approximate position of feet in sprint starting position: The front starting block is inclined at 40-50° at 1 to 1½ feet from the starting line. The back block is inclined 65-

70° at 1 to 1½ feet behind the front one. The width between blocks is 10-15 cm. Their longitudinal axes are not in a parallel direction, but are directed slightly forward-inward.

On the command "take your marks," the sprinter stands in front of the starting blocks, lowers himself—supporting himself on the arms—firmly places the strongest foot on the face of the front block, then places the other foot on the face of the back block, and places the back knee on the track.

Then he positions his arms, placing them slightly wider than his shoulders up to the starting line. The head is held in the usual position with regard to the body, with the eyes turned downward and forward.

At the command "get set," the sprinter smoothly, without hurry, lifts the pelvis somewhat higher than the shoulders, and moves the body somewhat forward. The legs are bent at the knees, at an angle of 90-100°.

At the gun, the sprinter lifts his hands, sharply pushing off the starting blocks, retaining the greater incline of the body forward, and making frequent, full steps. The length of the steps is gradually increased.

The first step is usually about four feet; and the sprinter should strive to make certain the 10th or 11th step from the blocks is of optimal length (7½ to 8 feet). At this time, the sprinter terminates the starting acceleration and passes to the run over the full sprint distance.

Starting commands should be given calmly in a short, authoritative way. The pause between "get set" and the gun should be no less than one second. But it's advisable not to make this pause always the same, to avoid creating a conditioned reflex to a single time interval; this may lead to false starts in competition.

Starting from the crouch start should be practiced many times, individually, until the technique is mastered. After this, have the boys take sprint starts in groups of 3 to 5.

With runs of 200 and 400 meters, the crouch start is taken at the beginning of the turn—placing the starting blocks at the outside edge of the lane so that a more nearly straight path may be run around the curve. Here again, in mastering the transfer of acceleration from the start to the racing speed, crouch sprint starts over 30, 40, and 50

(Concluded on page 49)

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The Box Stagger Start

INAUGURATED in 1938, the Central Michigan College Relays has grown tremendously over the past two decades, evolving from an area track meet into a two-day carnival serving high schools from all over the state. Last year (1958), 177 schools entered over 2,720 contestants in four classes, making it the largest high school meet in the land.

Because of the enormous number of entries in the distance events and relays, the meet director was confronted with a dilemma—he could align all starters across the track and thus have a congested and possibly dangerous situation around the first turn; or he could run extra heats and thereby prolong an already lengthy meet schedule.

The problem became acute when 15 to 46 contestants or relay teams from one school class were entered in events such as the two-mile relay, mile run, middle-distance relay, the 440, and mile relay. Since two school classes competed each day, the number of runners was, naturally, doubled, thus making two sets of races in each event.

There could thus be approximately 80 to 90 milers in one day's session! So eliminating even one heat in each of these would prove a real time-saver.

To alleviate the problems inherent in a race with too many starters and to save valuable time, a "box stagger system" of starting was inaugurated—making it possible to start as many as 25 or more runners in the same distance race without undue congestion around the first turn.

Used extensively in 1957 and

1958, it proved so successful that it's now being employed in the State Class B-C-&-D Regional Meet and the State Class C-D Finals.

Since most outdoor tracks have six lanes around the first turn, the "box stagger" is set up to accommodate tracks of this size. Lane

width isn't a factor of importance, except to delimit the number of contestants in each heat. The six lanes are divided into three boxes of two lanes each. Lanes one and two become the first box, lanes three and four the second box, and lanes five and six the third box.

The restraining line for box one is the curb and the starting point is the regular start for the race.

By **ALFRED S. THOMAS**, Relays Director, Central Michigan College

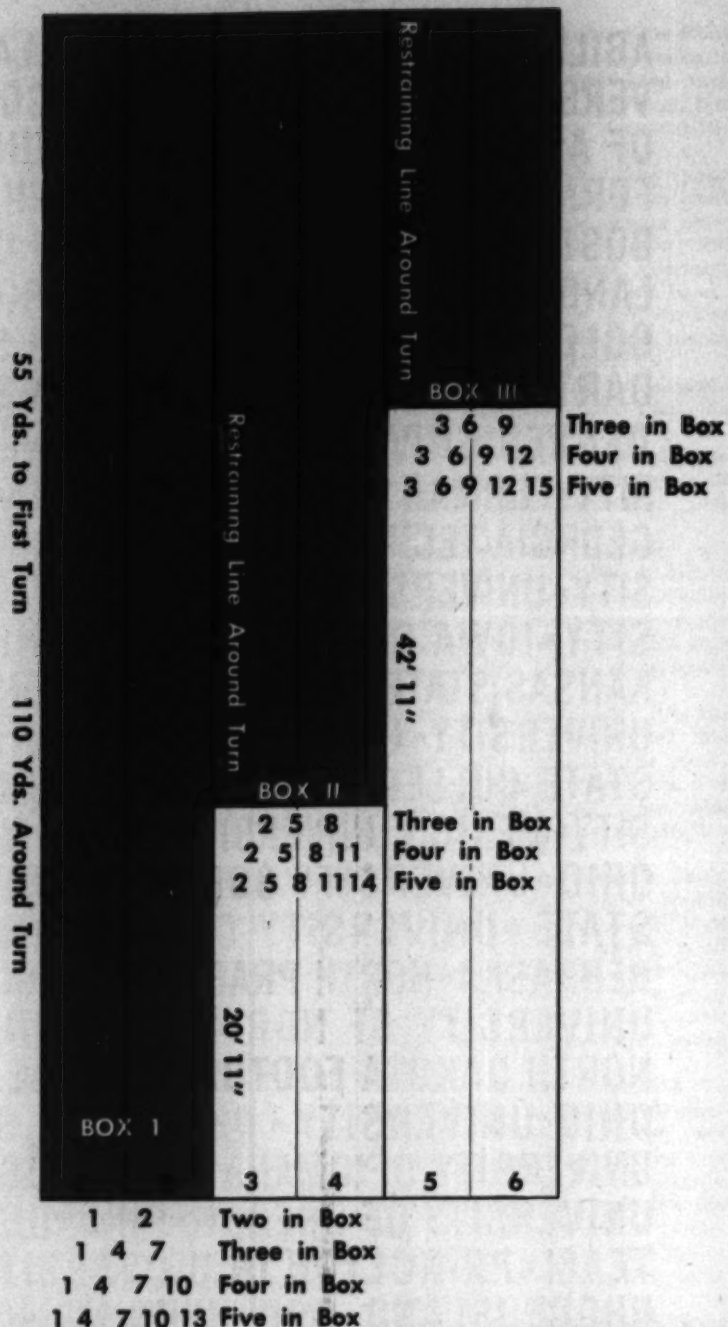
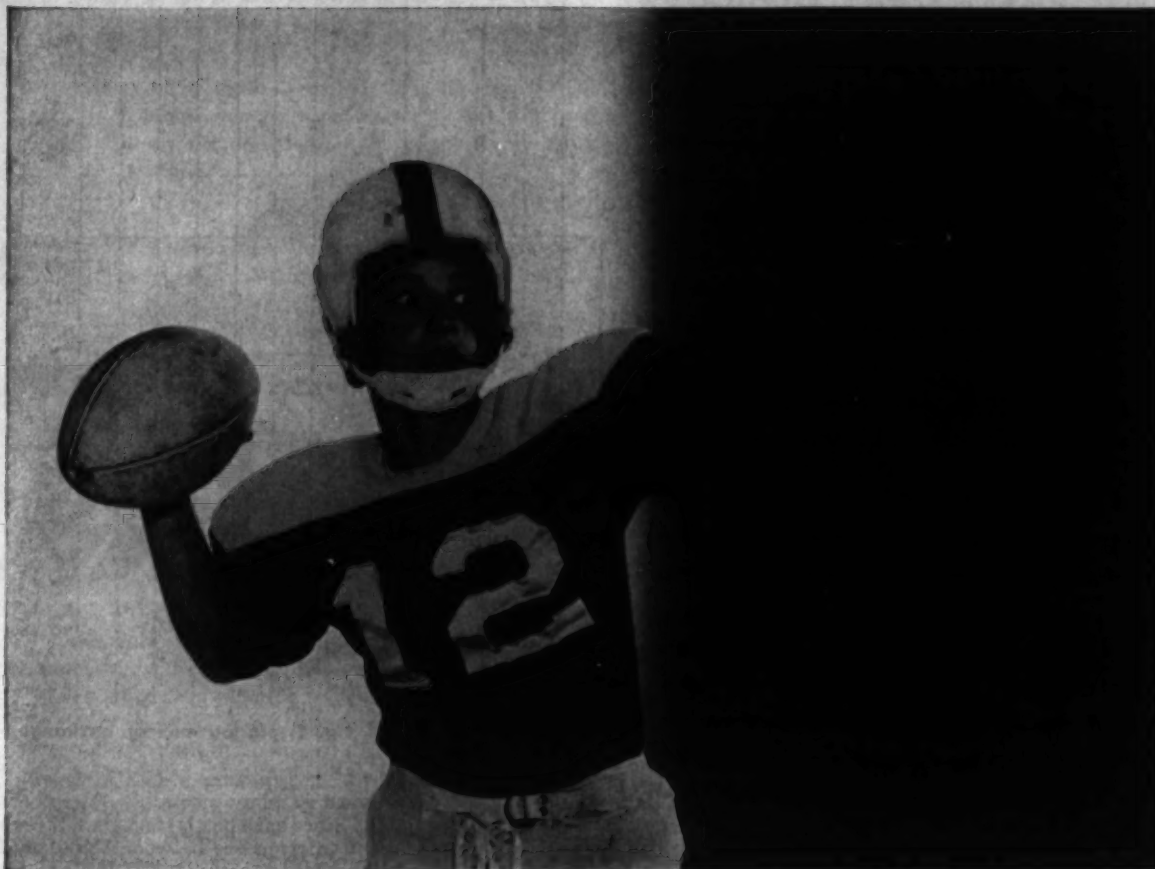


Fig. 1, how two, three, four, or five men may be placed in three boxes, making it possible to start as many as 25 or more runners in the same distance race without undue congestion around first turn.



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The restraining line for box two is the line to the left of lane three, and the start is that set up for a runner who's running around one turn in lane three.

The line to the left of lane five is the restraining line for box three, and the starting point is the start for a runner who's running in lane five around one turn. (See Fig. 1.)

Contestants in box two are confined to lanes three and four around the first turn. If running on lanes 42" wide, they're thus starting 20' 11 1/2" ahead of box one.

Contestants in box three, running in lanes five and six, are confined to lanes five and six around the first turn, and are thus starting 42' 11 1/2" ahead of box one.

This is the stagger requirement set up in the official rule book. The contestants are required to stay within their respective boxes around the first turn until the far straightaway is reached, allowing contestants in the same box 165 yards before the runners in all boxes merge.

The Central Michigan College track is 440 yards with 110 yards straightaway on each side and 110 yards around each turn. Since we believe the relay races and distance events should finish in front of the spectators, the races are started in the middle of the straightaway.

This means that a contestant at the pole has 55 yards to run before reaching the curve, thereby having 110 yards to complete the curve before reaching the far straightaway.

Contestants in box two have approximately 47 yards before the first turn, but have approximately 117 yards around the first turn in which they must stay in their respective box.

Runners in box three have approximately 40 2/3 yards before reaching the first turn, but have approximately 124 2/3 yards around the turn. If necessary, this distance could be extended until the far straightaway has been completed, thus giving each contestant 275 yards in his box before being allowed to cut into the curb.

Within each box, runners are restricted on the left by their restraining line—the curb for box one, the line between lanes two and three for runners in box two, and the line between lanes four and five for runners in box three. Within each box, runners are permitted to pass as in any other passing situation, the only restriction being the restraining line for their particular box.

At the point the restraining lines are eliminated, the regular curbing becomes the restraining line. To eliminate any possible confusion,

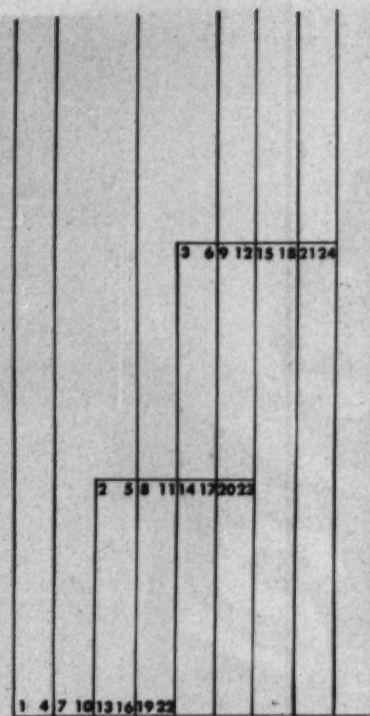


Fig. 2, start on 9-lane straightaway

each restraining line is marked with a different colored line, identifying boxes for runners and inspectors.

Depending on the width of each lane, it's possible to run three, four, or even five men on the front line of each box, thus giving at least five men in each box an equal opportunity to sprint for a desired position against the other men in his box before reaching the cut-in line on the track. Lanes are pre-drawn for the runners and assigned in the manner shown in Fig. 1.

With three men in a box, contestants 1, 2, and 3 have the pole position in their respective boxes; contestants 4, 5, and 6 run second from the pole; and contestants 7, 8, and 9 have the outside position in their respective box.

With four men in a box, the same plan is extended to include contestants 10, 11, and 12.

In the same manner, five men may be placed on the front line of each box, making contestants 13, 14, and 15 the outside runner in boxes one, two and three, respectively.

Runners in each box can go anywhere within their box to pass runners to their left, providing they use prescribed procedure. It has been found in using a box, that only three to five men are fighting for a position within the box, rather than nine to 15 men fighting for position at the start of the first curve after the conventional straight-across start

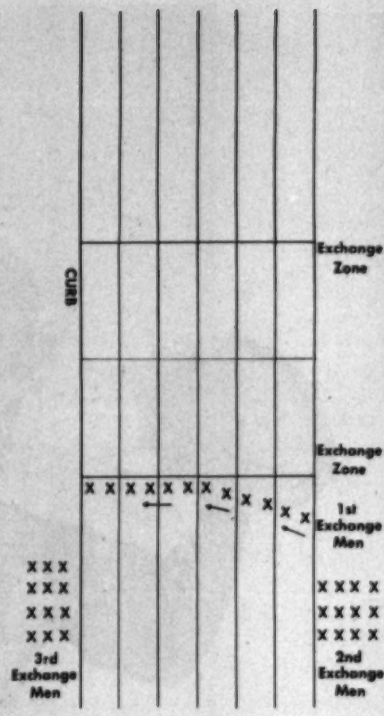


Fig. 3, placing men on exchange

used at many meets.

Since each box is staggered, there's no interference between boxes until the far straightaway and then an additional 110 yards are available before the next turn. Thus, runners are competing primarily against the entries in their own box around the first turn.

In city championship meets where perhaps six, seven, or more schools are allowed to enter contestants in events such as the 880 yard and mile run, it's possible to run an unlimited number of runners at one time without undue congestion around the turn.

Drawing for position can be by school rather than individual, and each school, having a front line position, could place their best runner accordingly. Other runners from each school would line up behind their lead runner.

Assuming all members of each team aren't equally proficient, the better runners from each school would be less hampered on the start and would have a better chance competing around the first turn. This gives logical contenders a better opportunity to obtain their maximum speed.

If a nine-lane straightaway is available on the starting side of the track, it's possible to further increase the number of contestants in each box to at least eight by simply placing starters farther to the right on

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an extension of the starting line for their particular box. (See Fig. 2.)

The restraining line for each box remains the same as for a lesser number of contestants. The farther a runner is from the restraining line of his box, the earlier he must make his bid for a position, unless he chooses to run to the right of his box for passing purposes.

Since the start is staggered, he's in no danger of meeting runners from the box to his right. Of course the wider he goes on the curve, the farther he runs. We've found no problem starting as many as 24 runners in the same race.

LIMIT TEAMS TO 15

It has been found practical to start all distance races—the 880, the mile run, middle-distance relay, the two-mile relay, etc.—in the same fashion. The only restriction would be in any relay in which the first man runs 440 yards or less. In this case, it would be best to limit the teams to 15 or less because of the possibility of too many runners completing the first lap at or near the same time. This could cause confusion at the exchange zone.

By clearing the infield of unnecessary contestants during a race around the track, it's possible to see team positions at most any part of the race. Because of this, we've developed a novel way of setting the second, third, and fourth leg runners on the track for their leg of the relay.

When the starters for each team are placed on their marks, if the first man runs only one lap, the second runners for each team are ready at the start of the exchange zone, the third runners are placed at the outside curb, and the fourth runner for each team is on the infield grass and down, careful not to obstruct the view of officials and second and third leg runners.

The second, third, and fourth place runners are instructed to watch their team throughout the race so they'll know the position of incoming teammates before they reach the exchange zone. This will assist the judges in placing them in their proper position on the track.

As the starters go, the first exchange men watch their teammates and place themselves on the track according to the position their team holds on the back stretch. The man whose team is in first place moves into the pole position, the man whose team is in second place moves into second position, etc.

As each runner comes in to hand off the baton (Fig. 3), his teammates' position on the track will

be determined by the place in which he finishes his lap. For example, a runner finishing his lap in third place will find his teammate three positions from the pole; a runner finishing in fifth place will find his teammate five positions from the pole.

As each team to the left receives the baton, succeeding teams should move toward the pole position; thus the last incoming team needn't run to the outside.

We've found that, with a little instruction, a trained student or a faculty official can very efficiently handle the runners on the relay exchanges. Adequate instructions at the beginning of each race will orient the runners to their obligation.

The "box stagger start" and this method of exchange in the relay races have alleviated congestion around the first turn, simplified the exchange in relay races, and, despite increasing the number of contestants handled, has decreased the time needed to run the meet.

Low Hurdling Around a Turn

(Continued from page 22)

bert (22.8) and Francis Washington (22.9)—and Charles Tidwell (22.7) of Kansas. The principles Gilbert and Washington adhere to are the ones I'll enumerate as we go along.

Most hurdlers fear the thought of: (1) running out of their lane, (2) losing their steps and hitting a hurdle, or (3) being unable to maintain their speed while hurdling deep into the turn, thus losing control of a well-timed race.

I try to have my hurdlers:

1. Run the first three barriers all out in order to build up momentum before entering the turn.

2. Have both the left-footed and right-footed hurdlers aim for the inside post of the barrier, with the thought of carrying the body weight as close to the inside of the lane as possible without stepping out of it.

3. Make every effort to accelerate their race on the turn, because it will help them maintain balance better. The law of centrifugal force applies here.

The accompanying sequence shows Elias Gilbert, current world record holder in the 220 lows on the straightaway (22.1) and former American record holder on the turn (22.8), exhibiting excellent balance and drive while approaching the barrier.

Note his total relaxation in the face and arms, and little or no tension in the body. Note also the quickness of his trailing leg and high knee action on the descent. These generally denote drive and balance.

Before Gilbert attained this perfection, he experienced a series of failures, such as falling in two of our conference championship meets. When Francis Washington suffered the same fate, I decided that their failures were due to a lack of strength. So I worked out a method of rectifying this, and it worked out fine—as you may perceive by their development.

What I did was set out a 300-yard course, including hurdles 1, 2, 3, and 4, omitting 5, 6, and 7, and inserting 8, 9, and 10. After clearing the last barrier, the boys were expected to run out the remainder of the 300 yards with as much speed as they could muster.

This was practiced on the interval principle of 6 x 300 yards, with 3-minute rests between each effort. I required them to do 35.0-37.0 until I felt they had built up enough strength to run an all-out race with the 5th, 6th, and 7th hurdles in their proper place.

SHOULD BE RUN OFTEN

The 220 hurdles on the turn should be run frequently because it's not only an exciting race but a great conditioner for the 440-yard hurdles. I believe the U.S. has gained dominance in the latter event because our boys get more opportunity to run the low hurdles on the turn than runners in other parts of the world. This carry-over gives our boys greater relaxation in the first part of the race. Therefore, they finish stronger.

Francis Washington, national AAU record holder in the 220-yard lows on the turn (23.1), is also the American collegiate record holder in the 440-yard hurdles (51.5). Yet he has only run the longer race five times in his life!

If high school low hurdlers are exposed to running on the turn, they'll find less difficulty adapting while in college.

The future of this event may be looking up. Last year it was made part of every major collegiate meet in the country (NAIA, NCAA, and NAAU).

Coaches interested in Coach Ross's hurdling theories are referred to his article in last March's Scholastic Coach entitled, "High Hurdling the (Elias) Gilbert Way."

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"Here Below"

(Continued from page 5)

when limb, head, or kidney is hurting. They think it's sissy stuff to confess an injury, and continue to gush plasma long after their efforts are doing neither themselves nor their team any good.

That's why our plastic helmet (with the protective face bar) is off to Jimmy Burke, Dartmouth ace fullback. In his team's championship Ivy League game against Princeton, he did the real hard thing—benched himself in the third quarter.

Mind you, this was the last and biggest game of his career. His team was leading by just one point, and the temptation to stay in there must have been almost irresistible. But Jimmy's only thought was for his team.

But let him tell it: "I wanted to keep on, but one shoulder had gotten so bad that I couldn't block effectively any more. I remembered what my high school coach back in St. Louis had taught me a long time ago. No team is any good with 10 men. You're no help to a team when you're hurt.

"So I asked the coach to take me out and get a guy in there who could help."

These words deserve posting high up on every locker-room bulletin board. There's a world of difference between valor and insensate heroics, and Jimmy's words spell it out as clearly and sensibly as any we've ever seen.

WHO said that pro football players are strictly business men in grey moleskin suits and that their fans are as tender-hearted as jungle beasts?

Maybe this was true years ago. But not any more. In fact, the most heart-stirring incident of the past season occurred in a pro game—the Giants-Colts championship play-off, to be precise.

It happened in the waning minutes. Crashing into the Giant backfield, Gino Marchetti, Baltimore's fabulous end, was racked up with a fractured ankle. A stretcher was rushed onto the field, and Gino was carried to the sideline. There the team doctor ordered him to be transported to the dressing room.

As the stretcher bearers reached the end zone, they suddenly came to a stop. Gino had commanded them to put down the stretcher. He wanted to see the rest of the game! And there he lay, just behind the end zone, a still figure swathed in

OLYMPIC BOOK OFFER

COACHES interested in rounding out their personal or school libraries with a copy of the 1956 Official U. S. Olympic Book will be happy to learn that the U. S. Olympic Committee is sending it to schools at the special price of \$6.

Regularly sold at \$10, the 1956 Olympic Book offers a gorgeously gold-bound, 480-page review of the Olympic Games at Melbourne, the Olympic Winter Games at Cortina (Italy), the Olympic Equestrian Games at Stockholm, and the 1955 Pan-American Games at Mexico City.

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The Olympic Committee also has on hand a limited number of 1952 Olympic Books which report on the Games in Helsinki, Oslo, and Buenos Aires.

As long as the supply lasts, the Committee will include a complimentary copy of the 1952 Book with every purchase of the 1956 Book.

Orders may be placed with the U. S. Olympic Committee, Biltmore Hotel, 43rd St. at Madison Ave., New York 17, N. Y.

blankets, with his head slightly raised watching the game. It really brought a lump to the throat.

As the spectators became aware of this drama, thousands of them burst into a roar which quickly turned into a chant. We couldn't catch the words for a moment, then they smote us rich and clear:

"Win for Gino! Win for Gino! Win for Gino!"

This, now, is pro football.

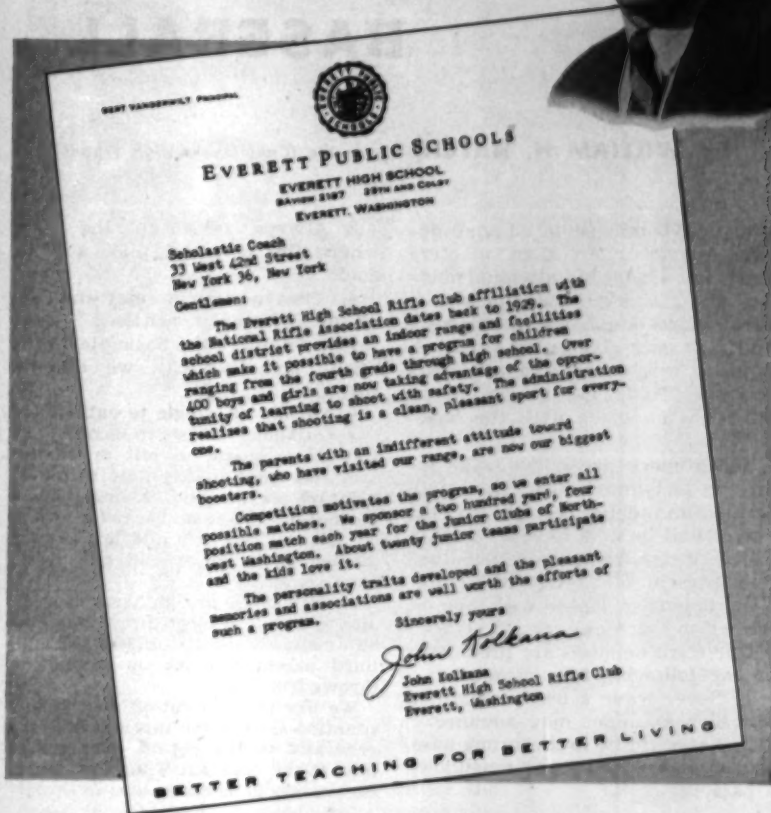
JUST three years ago we received a nice note from Modesto (Calif.) Junior College asking us if we'd be interested in running a photo sequence of one of its fine young tennis players.

We said sure, and a week or so later the pictures arrived, which we rushed into print (April 1956) under the title, "Big Serve by Alex Olmedo."

You can write the rest of the
(Concluded on page 43)

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Writes **JOHN KOLKANA**
Instructor, Everett High School Rifle Club



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Our team defenses are predicated on the following four principles:

1. Never leave a base unguarded to which a runner may advance.
2. Never throw to the wrong base, thus allowing the runner to advance a base.

3. Always back up the base where the potential play will be made.

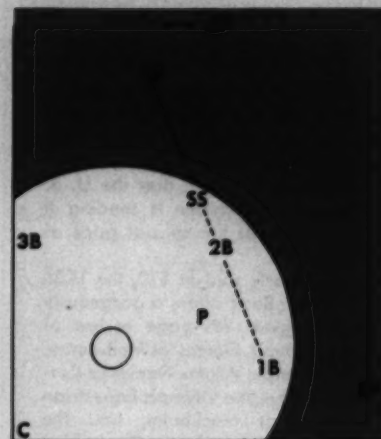
4. Always have the relay and cut-off men in proper positions.

Following are the basic play situations and the way we defense them:

1. Nobody on, single to outfield:
 - a. Outfielder throws to second.
 - b. On a single to left or center: shortstop goes out to meet throw as a cut-off man; second baseman covers second; first baseman backs up second on throws from left and left center; pitcher backs up second on throws from center.

- c. On a single to right: second baseman goes out to meet throw as a cut-off man; shortstop covers second; third baseman backs up second on throws from right.

We like to use a cut-off man in this situation since if the throw is bad, it's generally to the cut-off man rather than to the baseman. Thus the runner isn't as apt to advance.



Nobody on, single to left center: Showing perfect alignment between LF making play, SS in cutoff position, 2B covering bag, and 1B in back-up position. Also shows CF backing LF and RF and P in secondary backing-up positions.

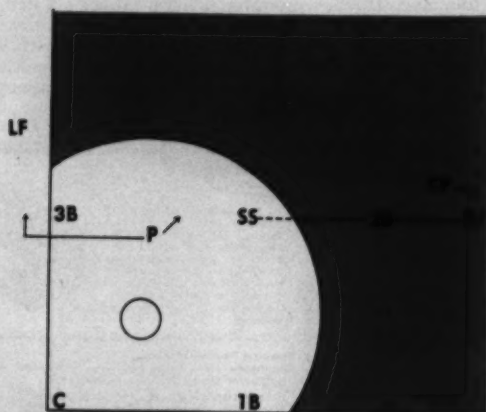
Also, by using a cut-off man on hits to right, we can occasionally pick off the batter making a wide turn at first.

2. Nobody on, extra base hit:
 - a. Outfielder throws to relay man.
 - b. Shortstop is relay man on all extra-base hits to left and center. Second baseman covers second.
 - c. Second baseman is relay man on all extra-base hits to right. Shortstop covers second.
 - d. Pitcher backs up second or third depending on where play is to be made.

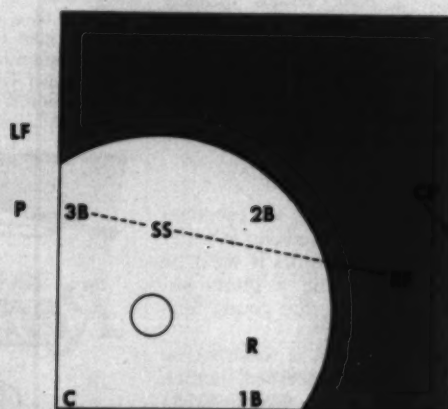
Our outfielders are instructed to shout the direction of the relay man to the fielder retrieving the hit. Also, the player covering second tells the relay man where the throw should go.

3. Runner on first, single to the outfield:

- a. Outfielder throws to third, aim-



Nobody on, extra-base to right center: 2B in relay position, SS covers base, P backs 2nd or 3rd, where play goes. CF backs RF and calls position of relay man. LF in secondary back-up position at 3rd.



Runner on 1st, single to RF: SS's cutoff position on direct line between RF and 3B. CF backs up RF while P backs 3rd. LF in secondary back-up position at 3rd. Perfect balance is observed.

ing at shoulders of cut-off man. Throw through the cut-off man rather than to him.

b. Shortstop is cut-off man, playing 20 feet in front of third and in a direct line between outfielder and third base.

c. Third baseman lines up cut-off man and tells him what to do with throw.

d. Second baseman covers second.

e. Pitcher backs up third about 20 feet behind base.

The pitcher's primary responsibility in defensive play situations is backing up the base where the potential play will be made. His defensive position in the center of the diamond enables him to gain a back-up position more quickly than any other infielder.

4. **Runner on first, extra-base hit:**

a. Outfielder throws to relay man.

b. Shortstop and second baseman are relay men or cover second base, depending to which field ball is hit.

c. First baseman is cut-off man at home. His position is on a line between first and third-base foul lines which intersects near edge of pitcher's circle.

d. On throws home, catcher lines up cut-off man with home plate and outfielder making throw.

e. Pitcher runs to a point on third-base foul line midway between home and third. As soon as he determines where throw is going, he backs up that base.

We use the first baseman on all cut-offs to home, rather than have the third baseman cut off throws from left field. It's our belief that more harm can be done by leaving third base unguarded than by leaving first base unguarded in this situation.

5. **Runners on second or second and third, single to outfield:**

a. If outfielder is moving toward plate when he fields ball or if ball is hard hit, throw goes home; otherwise throw to second base.

b. Shortstop and second baseman play as in number 1 above.

c. First baseman is cut off at home.

d. Pitcher backs up home.

6. **Runners on second or second and third, extra-base hit to outfield:**

Play as in number 2 above.

7. **Runners on first and second or bases loaded, single to outfield:**

a. Outfielder throws home if he fields ball while moving toward plate or if it's hard hit; otherwise throw to third base. Exception—on long single to left of right fielder, throw is to second base.

b. Shortstop is cut-off man at third.

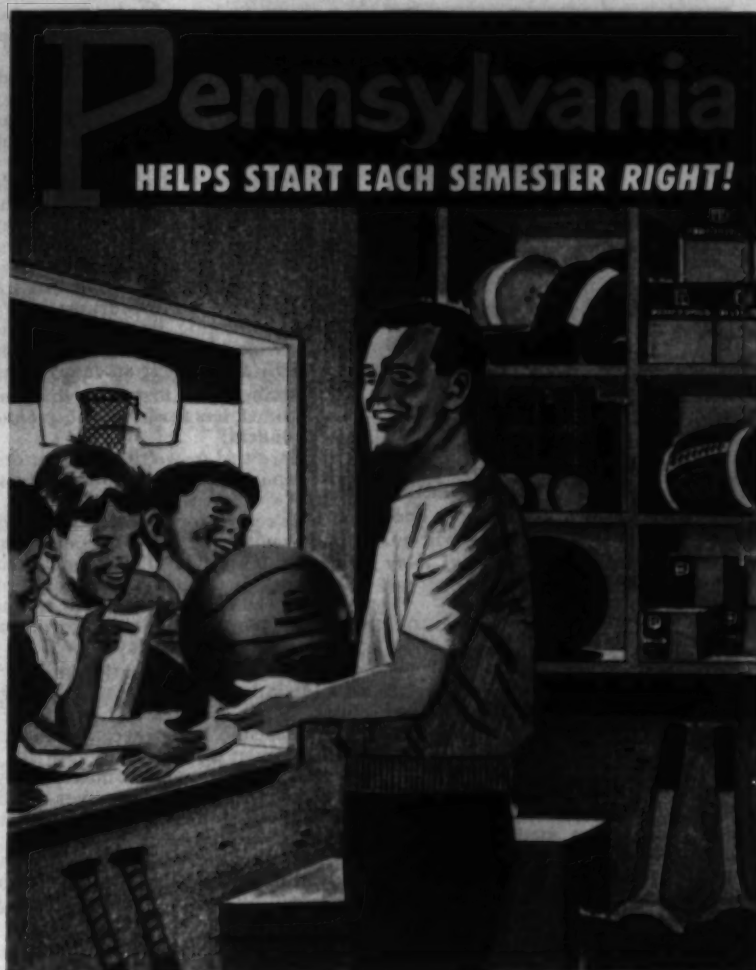
c. Second baseman covers second.

d. First baseman is cut-off man at home.

e. Pitcher backs up as in number 4 above.

On all balls hit to the left of the right fielder, we concede third base to the runner from first because of the distance of the throw. By throwing immediately to second base, the right fielder will discourage the batter from attempting to advance.

8. **Runners on first and second or bases loaded, extra-base hit to outfield:**



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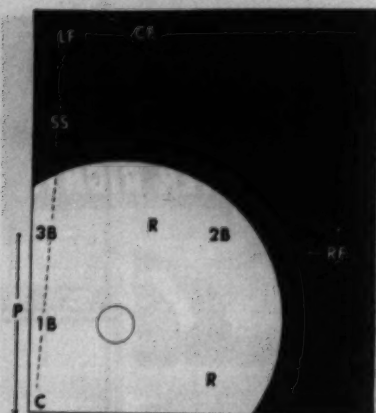
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Runners on 1st and 2nd, extra-base hit to LF: Illustrates alignment of relay man (SS) and cutoff man (1B), and back-up position of P on foul line ready to back up 3rd or home, where throw will go. CF backs LF and calls position of relay man. RF backs up play at 2B.

- a. Outfielder throws to relay man.
- b. Shortstop and second baseman play as in number 2 above.
- c. First baseman is cut-off man at home.
- d. Pitcher backs up as in number 4 above.

9. Runners on second and third, fly ball to outfield:

- a. If ball is hit medium deep or shallow, outfielder throws home; on long fly balls, throw is to third.
- b. Shortstop takes cut-off position at third.
- c. Second baseman covers second.
- d. First baseman takes cut-off position at home.
- e. Pitcher backs up as in number 4 above.

10. Runners on first and third, fly ball to outfield.

- a. Outfielder throws home if ball is medium deep or shallow; on long fly balls, throw is to second.
- b. Shortstop and second baseman play as in number 1 above.
- c. First baseman is cut-off man at home.
- d. Pitcher backs up home.

11. Outfield backing up plays:

- a. Every ball hit to an outfielder should be backed up by one of other outfielders.
- b. Every ground ball hit to infield should be charged by nearest outfielder, anticipating an error by infielder making play.
- c. Left fielder backs third on all plays at third in which he isn't involved and backs second on all throws from right side of diamond.
- d. Center fielder backs second on all steals, pick-offs and plays originating from home-plate side of second.
- e. Right fielder backs first on throws from infielders and catcher, and backs second on all throws from left side of diamond.

12. Runner on third, less than two out, ground ball to infield:

- a. Score tied or we're behind or one run ahead, infield plays in for play at plate.

- b. We're two or more runs ahead: first baseman and third baseman play in for play at home; second baseman and shortstop play back, giving up run for out.

We don't like to draw the infield in any more than necessary, but at the same time we dislike to give away runs. By keeping the shortstop and second baseman back when we have a two-run lead, we guard against the cheap hit through the drawn-in infield. By bringing in the third and first basemen in the same situation, we're still able to cut off many runs.

13. Runners on first and third or bases loaded, less than two out, ground ball to infield:

- a. Score tied or we're behind or one run ahead, infield plays in for play at plate.

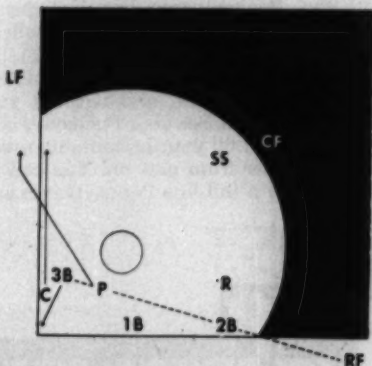
- b. We're two or more runs ahead: first baseman and third baseman play halfway for either play at plate on slow-hit ball or for a double play on hard-hit ball; shortstop and second baseman play back, giving up run for a chance at a double play.

14. Runner on first, batter bunts:

- a. First and third basemen charge bunt.
- b. Shortstop covers second and second baseman covers first.
- c. If third baseman makes play, catcher continues on to cover third; otherwise third baseman returns to third immediately.
- d. Pitcher backs up third if not involved in play and is able to get over.

15. Runners on first and second, batter bunts:

- a. Third baseman doesn't charge but covers third; if bunt gets by pitcher down base line, third baseman has to make play.
- b. First baseman charges at angle toward mound.
- c. Pitcher tries to cover third-base line.
- d. Shortstop and second baseman play as in number 14 above.



Runner on 1st, bunt to 3B: Exchange between 3B and C when 3B fields ball. P backs 3rd, RF backs throw to 1st, and CF backs any throw to 2nd. LF is secondary backer at 3rd.

16. Runners on first and third, runner on first steals second:

- a. Catcher throws for runner stealing second.

- b. Shortstop or second baseman covers second for tag on stealer.

- c. If runner on third breaks for home, player not covering second gives warning. The player covering second runs in to cut off throw and relay ball home.

We always go for the runner stealing second because it has been our observation (in high school ball) that the runner on third seldom tries to advance. He expects trickery on the throw, while the runner on first generally doesn't expect a play to be made on him and is thus an easy mark.

At the beginning of each season, we mimeograph a set of the above defensive play situations for every player on our teams. The players are expected to memorize their assignments in each situation.

We hold at least an hour drill every week (more often once our league season begins) covering the defensive situations and part of the time spent on out-of-town bus trips is utilized in setting up imaginary game situations and calling upon the players to state their responsibilities in each situation.

The drill used in our practice sessions consists of placing nine players in their defensive positions, with the coach calling out the situation—inning, score, and number of outs—and fungoing to the various fielders to check reactions and correct mistakes.

Once the coach is satisfied that the assignments have been learned, the drill is made more realistic and pressure is added. The remaining pitchers and reserves are used as batters and base runners. The pitcher on the mound throws to a batter who swings, purposely missing the ball, and runs to first. The coach, standing to the left of the plate, fungoes in the desired direction and the batter, if safe, becomes a base runner.

Nine defensive innings are played. After each inning, the bases are cleared of runners and the same procedure is repeated.

In closing, I'd like to quote Otts Vogel in his book, *Ins and Outs of Baseball*:

All infielders must keep the following factors in mind:

- The score.
- The inning.
- The call on the batter.
- The number of outs.

The strength and weakness in throwing, fielding and pitcher's control.

All of these elements affect position play; they are mentioned frequently because of their importance.

Each infielder should plan what he will do if the next pitch is hit to him, including a plan of action if he makes an error. If each player will mentally run through all the possible plays that can occur in a given play situation, he won't make mental misplays.

"Here Below"

(Continued from page 39)

story. For the kid from Peru, whose name at the time meant nothing to us, went on to great things at USC and then, this year, annexed the Davis Cup for Uncle Sam almost single-handedly.

The fact that Alex isn't even an American citizen and that he came to the U.S. on one of those foreign scholarship deals aren't germane here. Suffice it to say that we introduced him to the coaching public and that we deeply appreciate his services (and forehands) to Uncle Sam.

What the heck, Lafayette and Kosciusko weren't citizens either, and Einstein became a citizen by a special act of Congress. Hey, there's an idea: Why can't Alex get into the act, also?

EVER since we began publishing articles on interval training, we've been steadily inportuned for materials on this neoteric phase of track training.

Simple-minded as we are, we've always assumed that it was the track coaches who've been filing the requests. But our assumption may have been erroneous.

Two recent requests for articles on interval training have left us all shook up. The first is from Richard Eliot of Harvard who finds that "the articles on conditioning and distance running can be applied to my coaching of skiing."

The other nonplused us even more. G. C. Frostad of Burlington, Ontario, informs us that "I'm interested in applying interval training to *thoroughbred horses!*" We had to be defrostad after that one.

WEASELING is precisely the word for the new college football rule widening the goal posts by almost five feet. That will hardly put the foot back into the game. Only a toe.

The major problem in kicking field goals is one of distance, not accuracy. And the sensible thing would have been to put the posts back on the goal—as the coaches overwhelmingly demanded.

The committee rejected this because of the safety hazard. This fear is unwarranted. Did you ever hear of a pro being injured by banging into a post? And the pros play the roughest game extant.

Rules men speak dolorously of the inroads of the pro game. But the word "pro" seems to have immobilized them. When are they going to wake up and take some real positive action to enliven the college game?



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COACHES' CORNER

Cage-ily Speaking

By HERMAN L. MASIN

Editor, Scholastic Coach



Change of Direction—the first move after spotting a bill collector.

Referee—a lunatic who breathes into whistles.

Coach—a tormented psychotic who asks you to do the impossible.

Give-and-Go—turning in a blank exam paper and rushing for the door.

Splitting the Post—Abe Lincoln's boyhood chores.

Man-to-Man—the kind of talk nobody has with Junior any more.

Traveling—what losing coaches do a lot of.



Foul Shot—jabbing the knife into the Thanksgiving turkey.

Fast Break—the first 9-course dinner after a 7-day diet.

Reverse English—explaining your team's chances before the season.

Bank Shot—hitting the Corn Exchange for that second mortgage.

Dougle Dribble—a baby with an over-active salivary gland.

3-Second Rule—"unhand my daughter and get out of the parlor . . ."

10-Second Rule—"and don't slam the door behind you."

Four-Man Weave—the sportwriters' trek homeward after the annual banquet.

Figure-of-8—the human form after a 12-course Italian dinner.

Pick-Off—worrying the scab off a wounded patella.

Blocking Out—what your chapeau needs after the state final play-off.

Deliberate Offense—what mothers-in-law generally give.

Sharp Cut—Xmas present in the losing coach's salary.

Rebounding—a jilted lover in search of a warm smile.

Switch—change of subject when you ask the principal for a raise.

Slide—when the material runs out, you go into it.

Cold Night—when the girl friend says goodbye at the gate.

Clearing Out an Area—climbing out the back window when the hotel bill comes due.

Circulation Drill—push-ups on a wintry morning while waiting for the janitor to fix the radiator.

Cross-Court Pass—a leer at the pretty blonde on the other side of the net.

Clog the Middle—over-eat.

Bounce Pass—what happens to personal checks received from strangers.

Delayed Offense—that flush of anger two days later.

Natural Shooter—a fellow who can roll 7's and 11's while standing on his ear.

Shooting Chart—chicken tracks made by tormented student managers.

Scissoring—the therapeutic activity of losing coaches who wind up in insane asylums.

Inside Screen—the barrier you try to get by on your first date.

Staleness—the condition of the coach's after-dinner jokes.

Tournament Play—where the last touch of sanity vanishes.

Homer—what every official is to the losing coach.

Hook Pass—a kleptomaniac's major diversion.

Free Throw—the fourth round at the neighborhood pub.

Three-Lane Break—charge of the hot rods when the traffic light turns green.

Outlet Pass—a phony comp that gets you thrown out of the arena.

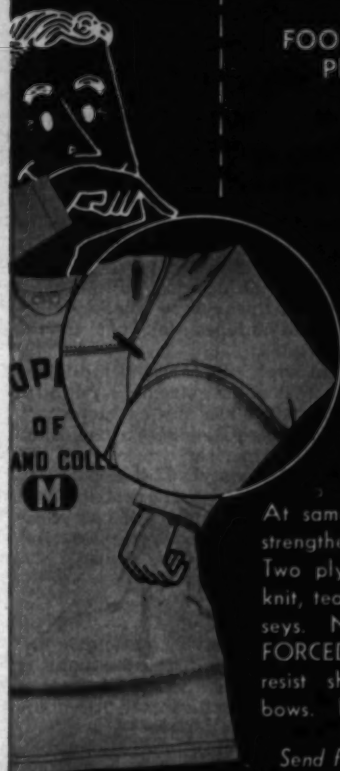


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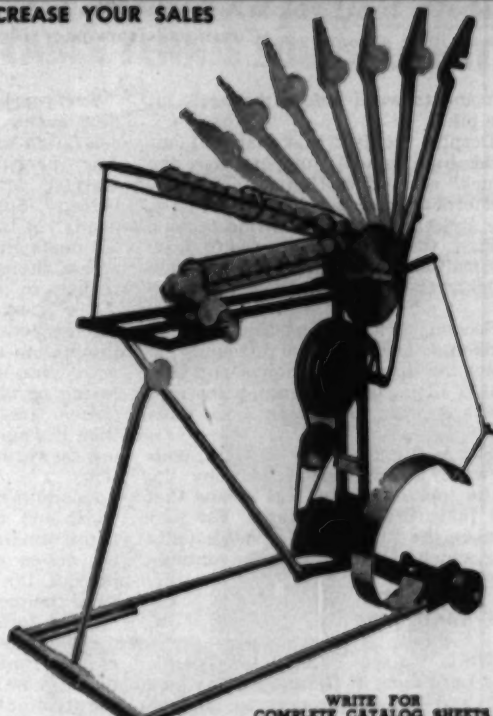
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Broad-Jumping Analyzed

(Continued from page 16)

out and forward before the heels hit the pit.

Despite the fact that many of our good high school jumpers use the "Tuck" and James Holland of Northwestern approached 26 feet using it, the style has several limiting factors.

First, the great tendency is to draw the trailing leg up under the body too quickly, thus not completing the take-off.

Second, men drawing their legs up suddenly also have a tendency to draw the upper torso down, and that makes lifting and extending the legs forward prior to landing more difficult.

Third, the breaking of continuous forward action of the body by the static tucking of the legs means that the jump is done in stages. For that reason, the "Tuck" style isn't usually one which permits a smooth, continuous motion.

THE HANG STYLE

While Eulace Peacock of Temple and Lutz Long of Germany have been the best-known jumpers to use the "Hang," countless others have cleared better than 25 feet with it.

Simple physics tells us that it's impossible to increase body momentum in the air. Thus, a simple technique in mid-air is all that's necessary. The most effective and one of the most easily mastered styles is a soaring action with subsequent extension of the feet to gain maximum distance. This style has been named the "Hang."

Following a proper take-off with the Hang style, the athlete reaches his maximum height with the chin and chest up, the back slightly arched, and the feet trailing slightly behind the rest of the body. The arms are forward and out during flight for balance.

As the jumper reaches the crest of his flight, there must be a forward swing of the hips to make the lifting of the feet less difficult. As the hips move forward, the legs are extended and the feet brought up so the heels are about level with the hip bone.

There's naturally tremendous stress put on the abdominal muscles at this time. With the arms also forward, there's now a slight forward curve of the back in evidence. In this sitting position in the air, the feet are about eight inches apart with the knees slightly flexed in preparation for landing.

At first glance, the Hang style seems exceptionally efficient and direct. There is, however, a limiting factor that will probably discourage the world's first 27-foot jumper from using it.

Every principle of coaching in the field events is one of continuous acceleration once the action is started. Any pausing or hesitation, we've learned, tends to destroy forward velocity. So, when we see an athlete "hang" in the hollow back position as he floats during the course of the action, the exact efficiency of the form is open to question.

The ill-effect of violating this "continuous action" principle is noticed as the athlete begins to lift his legs forward into the sitting position. The lifting of the static hanging legs requires greater abdominal strength than it would had the legs been moving forward during the "hang" position.

In addition, as the legs do start forward and up we find the jumper's trunk tending to come down due to the action and reaction principle of physics. It's for the latter reason that hang jumpers don't keep their legs moving forward during the hang. If they did, the premature drawing down of the trunk by the early leg lifting would eliminate the real advantage the style possesses.

THE STEP-STYLE

In reality, the now universally used Step Style bears some resemblance to the Hitch Kick Style—the difference being that jumpers using the Step only take a step and a half in the air. Hitch-kickers often just continue to run in the air; often without purpose or reason, as they execute another complete leg cycle before landing.

The Step Style, as used by Gourdin, Steel, Owens, Bennett, and Bell, is no doubt the most effective style yet devised. It allows for a full and complete take-off from the board, as there's no need to bring the take-off leg forward quickly; it provides a smooth, natural, continuous action in the air; and it leads to easier and more complete lifting of the legs for landing for the following reasons:

1. The trunk is erect in flight.
2. The lower leg swings like a pendulum to aid the abdominal muscles.
3. The legs are in continuous motion forward during the jump.

In the Step Style of jumping, the athlete actually bicycles in air. Presenting the action to the athlete in just that way often aids in teaching.

A true step jumper takes one step in the air between take-off and landing. The jump starts as the kicking or free leg drives upward at take-off. At the top of the jump, this take-off leg steps down just as though the jumper were stepping on an imaginary box, while the take-off or trailing leg comes through in rhythm, knee first.

Now the action of this trailing leg becomes much the same as that first used by the lead leg as the athlete jumps from the imaginary box. With the take-off leg now leading the jumper—knee first—the final phase of the action is starting, as the free leg (original kicking leg) comes up to the extended take-off leg.

It should be noted that the take-off leg action throughout the jump is continuous and smooth as it comes off the board, swings forward, knee bent, and raises up and out in front of the athlete for landing.

On the other hand, the action of the free or kicking leg during the jump starts forward off the board, drops down during the step (to counterbalance the drawing through of the take-off leg), then is swung up forward and out as the legs come together extended for landing.

A feature of this style is that, due to the continuous, vigorous, leg swing forward, the trunk actually tips back rather than forward prior to landing. The raising and holding up of the legs in landing is thus made easier for the athlete.

THE HITCH KICK

There's so much confusion as to just what constitutes a true hitch kick jump that some of our leading texts and coaches are in complete disagreement on it.

The hitch kick is, actually, another complete leg cycle in addition to that described for the "step" style. In general, it's an outdated style, too complicated for the average boy and offering no advantages not seen in the "step" style.

In addition, the more complicated action makes it extremely doubtful that this style has any extraordinary potential. One rarely sees a true hitch kicker on American tracks, but exponents of the style still appear occasionally in Europe. It's probable that these jumpers would be just as effective or even better with the less complicated "American Step Style."

LANDING

Regardless of style, landing in the pit is an art in itself, and the inability to incorporate leg lift into the jumping style has handicapped many fine athletes.

The landing position is important and should be constantly stressed. The longer the heels are kept off the ground, the longer the jump. The maximum point is when the hips land even with the heels. Over this, the feet are dropped too soon; under, the feet are too high.

The style in which the jumper stiffens one leg and relaxes the other so that the body is swung to one side is preferred; but many good jumpers merely go through the knees. The important fact is that form is unimportant, except to keep the heels off

the ground until the last possible instant.

A coaching point is to tell the man that for every inch he can keep his heels off the ground, three inches are gained for the jump, since he's coming down at a 30° angle. While this may be theoretically true, practically it should be used only as a psychological point.

It's evident, then, that regardless of method the type of landing used must be designed to make it possible for the jumper to get his feet as far out into the pit as possible during landing. Though some coaches prefer the "swing-out" landing, the vast majority of American jumpers use the more efficient and simple method of merely going through the knees and over the feet when the heels touch the pit.

Other jumpers have developed variations of these accepted methods. Greg Bell, for instance, carries his legs into the pit practically straight so that when he lands his body pitches or vaults over his feet. Owens, prior to landing, would turn the body in flight, his method being a variation of the "swing-out" but with both legs semi-straight.

Landing, regardless of style, requires as much practice as take-off work. Literally hundreds of short "pop-up" jumps with the athlete working on holding his legs up and out when landing are a necessity in the program of every jumper. Once he learns the technique of leg lifting, he can concentrate on getting over or through his feet so he doesn't fall back in the pit.

In going through the legs and over the feet, the jumper must do four coordinated things to prevent sitting or falling back into the pit. As soon as his heels touch the pit in descent, the jumper must:

1. Drop the chin to the chest.
2. Break forward at the hips.
3. Relax and let the knees bend.
4. Swing the arms downward and back.

The most difficult and most important phase of landing is, as mentioned, the holding of the legs and feet forward and up during the descent. Tremendously strong abdominal muscles are the best assurance that this will be done correctly.

In addition, a simple coaching point has helped many raise their feet: When the legs swing forward, ask the athlete to raise his "shoe laces to eye level" during descent. This may not be quite possible, but often accomplishes simply and quickly what the coach wants to have him do.

In almost every landing, the feet are slightly spread as they drive into the sand and shavings. In the method that enables the man to go through and over the feet, this foot-spread is essential. The actual distance that the feet are held apart is between 6 and 8 inches. Any wider spread would lead to an appreciable loss of distance in the measured jump.

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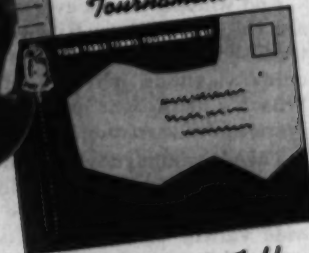
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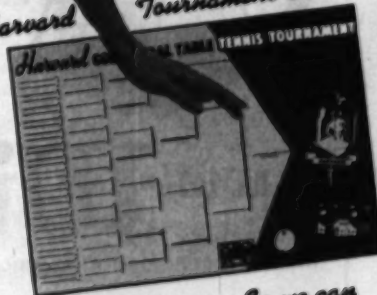
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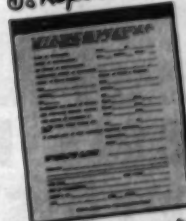
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Yuri Stepanov

(Continued from page 9)

would tackle a lesser height 10 or 15 times, or more, to work on one small point of his form. He would jump at 6'6¾", clearing it 10 times, each time using a shorter run. And twice a week, on the average, he jumps for height, the jumping serving as a check on what he has learned and accomplished in practice.

One workout, which is typical but by no means stereotyped, started with 400 lead-leg kicks on the Swedish ladder. At the pit, he cleared 6'6¾" ten times with successively shorter runs, then progressed to 6'7½", 6'8¾" and finally 6'9½", which he cleared three times. He finished with a jog around the track.

Now for the style of jumping. This is best studied by a combination of the accompanying photo sequence and an analysis in the words of Coach Goikhman. But before studying the pictures, let's hear what an American coach thinks of the Russian ace.

Payton Jordan, the highly capable Stanford coach who helped lead the U. S. squad to their victory over Russia last summer, was highly impressed by Stepanov.

"Stepanov is the best high jumper I've seen, bar none," says Jordan. "He's outstanding in two respects. He uses very good speed. And he has the ability to block his forward action and transfer the speed to upward motion. In this respect, he tops all high jumpers I've known."

"In other mechanical abilities, Stepanov is about average. He's very good on top of the jump. His outstanding blocking action is the result of strength, which comes from much work, and from lots of hard training on the mechanics of the action."

Jordan concludes with the observation that "it seems naive to believe that a highly complicated athletic technique can be perfected without countless repetitions. Yet that's exactly what many of our high jumpers are trying to do. Where their training leaves off, Stepanov's begins."

In the pictures, particularly note No. 4 wherein Stepanov, at the end of his push-off, finishes his movement along the running line rather than turning his face and chest in the direction of the bar—a common fault with many belly-roll jumpers.

In Coach Goikhman's view, Stepanov avoids this basic error by the way he uses his push-off leg without a preliminary turn of the shoulders

to the side, and by the rocking motion of the push-off foot and the full employment of its strength to send the body upward. At this moment, many jumpers turn their foot with the toe outward. Unable to rid themselves of this mistake, they begin to believe it's a natural jumping technique.

The swing leg, sharply straightening out at the knee, reaches the horizontal line straight, after which it begins to bend at the knee in order to compensate for the loss of speed at the end of the swinging movement.

Russian Sprinting

(Continued from page 30)

meters should be practiced.

For control in mastering the technique of the crouch start, the athlete may sprint 30 meters from a crouch start, with stopwatch timing. The repeated 30-meter crouch sprint starts should be recorded for each athlete. When the starting technique is mastered, the difference in times should be no less than 0.8 seconds.

The last particular problem of training is mastering the finishing drive or throw at the tape. Where the entire distance of 100 and 200 meters is run at maximum speed, the sprinter has no chance to increase his speed at the finish. The problem now involves retaining the highest speed to the end of the race. And when sprinters come to the finish line simultaneously, the throw to the tape becomes most important.

To master the finish, the following means are used: Sprint 60-80 meters and pass the tape without throwing yourself at it. Run the same sprint distance with 3 to 5 other sprinters, throwing yourself into the tape by means of inclining the body forward on the last step.

Before the finish—on the last 20 to 25 meters—special attention should be paid to actively working the arms to retain speed of the running motions and, consequently, speed of the run.

The final problem of training is mastering the technique of running the sprint race as a whole. This is accomplished by means of sprinting from crouch starts for 60, 100, and 200 meters, concentrating consecutively on the (1) start, (2) accelerating speed, (3) sprinting the entire distance, (4) finish, and (5) throwing yourself into the tape. Time the 100 and 200 meter runs. It's advisable to participate every week in competition or time trials.



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Jerry Grass (Central) Bay City, Mich.	5.10	165
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Julian Malinski (East Rutherford) N. J.	5.11	170
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Ralph Wolfendale (Lawrence) Mass.	6.2	180

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Dick Asbury (Graham) Bluefield, Va.	5.9	158
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Lloyd Buzzi (Arkansas City) Kans.	6.0	165
Donald Davis (Stamford) Tex.	5.11	175
Larry Drake (West) Fairmount, W. Va.	5.8	155
Hix Green (Jefferson) San Antonio, Tex.	5.8	165
Kent Hutchison (South) Denver, Colo.	5.10	170
Billy Jackson (Pensacola) Fla.	6.0	175
Ken Mike (Redford) Detroit, Mich.	6.1	190
Charles Mitchell (Garfield) Seattle, Wash.	5.10	170
Jackie Pope (Oak Ridge) Tenn.	5.8	155
Mel Stanton (Lewis & Clark) Spokane, Wash.	5.11	175
Jack Strobel (Fenwick) Oak Park, Ill.	5.10	170
Joe Williams (Rahway) N. J.	5.10	185
Paul Yutka (St. Joseph's) Kenosha, Wis.	6.0	195

FULLBACKS

Bruce Kohl (Washington) Cedar Rapids, Iowa	6.2	196
Bill McGuirt (Lancaster) S. C.	6.0	190
John Mumme (Harvey) Painesville, O.	6.1	190
Gene Phillips (Adams) South Bend, Ind.	6.1	190
Jim Stockard (Sapulpa) Okla.	5.11	170
Ted Saussele (Coral Gables) Fla.	6.0	178
Bill Scott (Vocational) Chicago, Ill.	5.11	205
Bill Willis (Ada) Okla.	5.10	194

ENDS

Leland Allred (Wichita Falls) Tex.	6.3	179
Bill Battle (West End) Birmingham, Ala.	6.0	180
Jeff Bearden (White Deer) Tex.	6.3	185
Albert Briggs (Nashua) N. H.	6.1	190
Harry Butsko (Cass Twp.) Hecksherville, Pa.	6.4	208
Paul Costa (Port Chester) N. Y.	6.5	225
Kenneth Lester (Florence) S. C.	6.1	185
Bill Middleton (Marion) O.	6.4	215
Doug Popham (Rapid City) S. D.	6.0	185

Bruce Sterling (Ocala) Fla.	6.3	190
Ron Snidow (San Rafael) Calif.	6.2	205
Homer Thurman (Bloom Twp.) Chicago Hts., Ill.	6.6	205
Mike Tomasovich (Weirton) W. Va.	6.4	205
Bob Vogel (Massillon) O.	6.5	225

TACKLES

Donald Anderson (Atlantic) Iowa	6.5	240
Ed Beard (Oscar Smith) South Norfolk, Va.	6.1	217
Joe Bonar (Bellaire) O.	6.2	235
Larry Coleman (Reitz) Evansville, Ind.	5.11	210
Al Daigle (St. Louis) Biddeford, Me.	6.5	220
Jim Dunnaway (Columbia) Miss.	6.5	265
Dennis Haffelt (Williston) N. D.	6.0	210
Charles Huddleston (Breckenridge) Tex.	6.0	195
Ross Iudica (Salesianum) Wilmington, Del.	6.1	230
Gary Kallenbach (Clairton) Pa.	6.4	253
Matt Mensberg (Kamohamoha) Honolulu, T. H.	5.10	192
Mickey Ordling (St. Mary's) Berkeley, Calif.	6.0	210
John Sherer (Lincoln) Philadelphia, Pa.	6.2	220
Al Valpe (East Orange) N. J.	6.2	225

GUARDS

George Azar (Johnstown) Pa.	6.0	195
Mike Gieb (Garland) Tex.	5.11	208
Jerry Hopkins (Mart) Tex.	6.1	220
Gary Kinchen (Baton Rouge) La.	6.1	193
Joe Kosloski (Marietta) Ga.	5.4	180
Joe Lalli (Ogden) Utah	6.0	210
Bob Lehmann (Flager) Louisville, Ky.	6.1	195
Earl McQuiston (Keokuk) Iowa	6.1	220
Jim Muhlhauser (Lindsay) Okla.	5.10	210
Cecil Tackett (Central) Little Rock, Ark.	5.11	196

CENTERS

Dave Behrman (Dowagiac) Mich.	6.4	282
Jon Black (Farmington) N. Y.	6.2	220
Johnny Cole (Carter) Fort Worth, Tex.	6.2	220
Tom Hall (St. Francis) Brooklyn, N. Y.	6.2	197
Mike Haycock (Annandale) Va.	6.5	235
Keith Hinkle (Ashland) Pa.	5.11	196
William Lang (Fairfield Prep) Conn.	5.10	205
John McClay (Evanston) Ill.	6.1	190
Dick McPherson (Weymouth) Mass.	6.2	195
Jon Stone (Centralia) Mo.	6.1	204

1958 All-American High School Football Squad

SCHOLASTIC COACH'S Eighth Annual All-American High School Football Squad takes a back seat to none of its predecessors, particularly in the size of its operatives.

The 1958 Squad rosters a 282-pound center in *Dave Behrman*, an all-stater from Dowagiac, Mich.—the heaviest schoolboy ever tapped for the Squad—while 12 of the 14 tackles top 200 pounds, as do seven ends, four guards, six centers, and two of the backs.

From our scouting reports, these boys are extremely agile and provide a happy hunting ground for college coaches.

The backfield stars ran a bit smaller this year and didn't compile the outstanding individual records that some of our boys have in the past. There seems to be a leveling off of material these days—they're all good.

From past experience, it can be safely predicted that about 75% of our selections will go on to star at major colleges, and that the country's top player will come from this list. Randy Duncan was a quarterback on our 1954 team and Billy Cannon a fullback in 1955.

Other boys who were on that 1954 Squad and who were college seniors this year include Lee Grosscup, Don Allard, Tommy Lorino, Dick Bass, Nick Pietrosante, Homer Floyd, Ross Coyle, Bronko Nagurski, Stan Renning, and Dick Teteak—all high on the 1958 pro draft list.

Our 1957 team listed only one junior who was eligible to repeat in 1958, and he came through with flying colors. He's *Jerry Gross*, a 165-pound quarterback who piloted Bay City Central to the Michigan state championship (mythical). Jerry's passing record for two years reads like this:

1957—74 completions of 141 passes for 1553 yards and 20 touchdowns.

1958—67 completions of 103 passes for 1271 yards and 14 touchdowns.

He's a fitting successor to two of

our previous Michigan quarterbacks, Earl Morrall and Jim Ninowski.

Gross would have to look to his laurels as a tosser, though, when compared to Ralph Wolfendale of Lawrence, Mass., who's rated the best passer in that state since Harry Agganis (he broke Agganis's yardage record). Ralph's father was a great lineman at Fordham.

Mark Rutkoski of Braddock, Pa., is another unusual youngster. Scholastically he rates first in his class and as a field general and passer he had no peer. He piloted Braddock to a sectional championship with 45 completions in 83 passes and 876 yards. In three years only three of his passes were intercepted, and he had to run the ball only 10 times all year, so adept was he at getting rid of the ball.

OREGON'S FAVORITE BAKER

Another quarterback, *Terry Baker* of Portland (Ore.) Jefferson, has led his team to two consecutive state championships in a tough play-off series, and rates as one of the top basketball prospects in the country as well. He hit for 60 of 96 southpaw tosses for 1261 yards and had a total offense of 1698. His record outshadows that compiled by George Shaw when he was a Portland schoolboy.

New Jersey chipped in with its best quarterback in years in *Julian Malinski* of East Rutherford. Julian hit 49 of 103 passes for 1054 yards and 12 touchdowns. But he sparkled more than the other lads as a ball-carrier with 894 yards in 107 carries for a tremendous 8.4 average considering the fact that he was thrown for several losses while attempting to throw. He scored 16 touchdowns and 15 extra points.

Doyle Lamonica (Clovis, Calif.), *Joe Balus* (Biloxi, Miss.), and *John Faiman* (Omaha, Neb.) are our other quarterbacks. Their statistics aren't perhaps as exciting as the

aforementioned, but each was considered the top college prospect in his area or state and all were great football players.

Fabulous rushing records were compiled by several of our halfbacks.

Jimmy Burson of LaGrange's Georgia state champions ran for 1539 yards during the season, while *Jackie Pope* led Oak Ridge's Tennessee champs with 1578 yards in only 92 carries for a 17.2 average. That's a better average than Dick Bass had in high school; and Jackie, a tailback, added 44 of 64 passes for 788 yards. He scored 158 points and passed for 72 more. Tennessee should be able to use him, even at 158 pounds!

Add *Joe Williams* of Rahway, N. J., who merely racked up 191 points in eight games, scored 19 touchdowns on runs of over 25 yards, and had an average of 11.6 per carry.

Larry Drake of Fairmount, W. Va., had an identical number of points with runs of 85 (twice), 80, 70, 65, 60, 61, 56, 49, 47, 43 yards. Drake possessed tremendous speed and change of pace.

Comments on our other halfbacks include: "Good as Ameche and Lattner were in high school" of Paul Yutka, St. Joseph's of Kenosha, Wisc. Johnny Lattner is his coach! "Best back in Texas" of *Hir Green*, only a junior from San Antonio Jefferson and also of pile-driving *Don Davis* of Stamford, Tex.

There was an unusual number of outstanding fullbacks in 1958, and we had to drop five boys at the last minute who seemed every bit as good as the ones we picked.

Gene Phillips of South Bend, Ind., was a three-year all stater.

Bruce Cole of Cedar Rapids was considered one of the best all-around players ever to appear in his state.

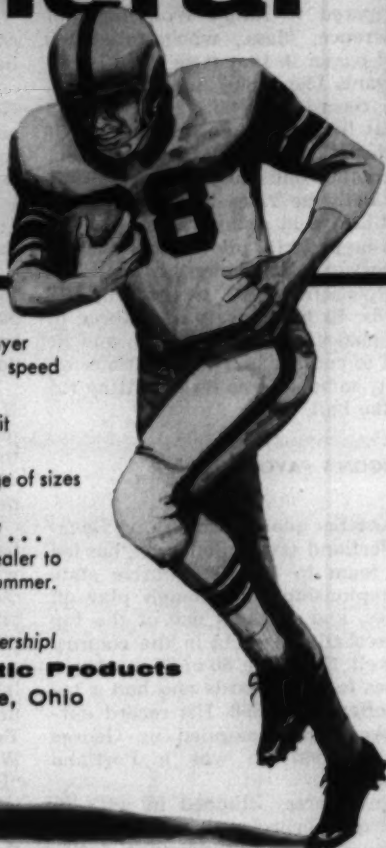
Jim Stockard and *Bill Willis*, from Sapulpa and Ada, respectively, were considered top gridders in a great football state.



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Ted Saussele, a transplanted Missourian, was rated the No. 1 player in Florida, and **Bill Scott** of Chicago Vocational the top football player in the city that supplies more grid talent than any other.

Bill McGuirt of Lancaster, S. C., gained over 100 yards in the all-star game against North Carolina, and **John Mummey** was the top scorer in Ohio. For the record the boys who were just edged out were: **Pete Americus**, Easton, Pa.; **Dawn Fannin**, Boise, Idaho; **Tom Hennessey**, Brookline, Mass.; **Danny Neumann**, Tallulah, La.; and **Steve Underwood**, Madison, Wisc. It will be interesting to see how far they go in college. One year the last man we cut was **Lennie Moore**:

Because of the type of game being played today, pass receiving isn't the primary criterion in selecting our ends. Suffice it to say that all could hang onto the ball but that they were noted for blocking and defense.

One flanker, **Paul Costa** of Port Chester, N. Y., was converted to the backfield this year and became a great scorer. He could go at either position.

All 14 wingmen go at least six feet with **Homer Thurman** of Bloom Township, Ill., the tree-topper at 6-6. He's the state high jump champion (shades of R. C. Owens).

A noteworthy lineman was **George Azar** of Johnstown, Pa., voted the top lineman in Western Pennsylvania. George was a great place-kicker as evidenced by his field goal which beat Clairton for the regional championship and a raft of extra points.

Clairton had a 253-pound tackle, **Gary Kaltenbach**, who also makes our Squad. Also at guard is our shortest member, **Joe Kozloski** of Marietta, Ga. at 5-4 and 180 pounds. Just try to move that!

This year's Squad is dominated by the great state of Texas which placed no less than eight boys on the 80-man Squad. Pennsylvania comes second with six, while Illinois and Ohio placed four each.

No apologies need be made for the geographical distribution. Texas has the best organized football program in the country, the longest season, and supplies seven Southwest Conference schools plus numerous smaller institutions with 95% of their material.

A squad composed of the best players in Pennsylvania last August beat a so-called All-American team in Hershey, 7-0, to justify that state's greatness. There just weren't enough Texans on that "All-American."

HONORABLE MENTION

48 STATES

ALABAMA — Terrell Wallen (E) Gadsden; Earl Brophy (G) Montgomery Lee; Bart Kennedy (B) Montgomery Lee; George Wilson (B) Hueytown; Terry Clark (B) Carbob Hill; Carlton Rankin (B) Piedmont.

ARIZONA—George Heard (E) South Mountain; Fred Burton (T) Phoenix Union; Stacy Ostland (B) South Mountain; Lewis Albright (B) Scottsdale.

ARKANSAS—Richard Branch (T) El Dorado; Don Boothe (B) Hope; Tom Brasher (B) El Dorado.

CALIFORNIA—Ends: Hayward Williams, Santa Barbara; Dan Spence, Banning of Wilmington; Willie Brackins, Encinal of Alameda. Tackles: Jud Kehl, Reseda; Roy Jones, Oroville; Ed Hite, Santa Maria; Ed Knowles, El Monte. Guards: Dave Wells, Canoga Park; Todd Jagerson, Long Beach Poly; Harold Beach, Colton. Centers: Robert Holt, Los Angeles Jefferson; Roy Pharis, San Diego; Bob Ellington, San Francisco Mission; Paul McDoffee, Santa Cruz. Backs: Ezell Singleton, San Diego; Ken Hubbs, Colton; Jerry Otterson, Paramount; Kermit Alexander, Los Angeles Mt. Carmel; Bill Redell, San Marino; Anthony Lorick, Los Angeles Fremont; Mitch Dimkich, Los Angeles Wilson; Bob Hernandez, Banning of Wilmington; Nick McLean, North Hollywood; Larry Campbell, Huntington Park; Chuck Ellis, Corning; Herman Hutchinson, Oakland Castlemont; John Kirby, Santa Cruz.

COLORADO—John Seal (E) Cherry Creek; Bob Stofac (T) Pueblo Central; Don Meador (G) Arvada; Lee Velasquez (B) Denver South; Roger Granere (B) Grand Junction.

CONNECTICUT—George Kelly (T) Greenwich; Fred Koury (G) Hartford Public. Backs: John Szumczyk, Wm. Hall of West Hartford; Gene Jenkins, Hartford Public; Ray Ciarleglio, Notre Dame of West Haven.

DELAWARE—Vincent Marcozzi (T) Salesianum; Homer King (B) Brown.

D. C.—Bernie Chavis (E) Eastern; Dick Drummond (B) Wilson; Paul Ciatti (B) St. John's.

FLORIDA—Don Hughes (E) Pompano Beach; Dalton Bray (T) Jacksonville Lee; Anton Peters (T) Tampa Hillsborough; Bill Sykes (G) Pensacola; Eddie Feely (B) Gainesville; Mark Whitehead (B) Tampa Plant.

GEORGIA—Jimmy Dix (E) Glynn of Brunswick; Dave Haynes (T) Marist of Atlanta; Ed Hertwig (T) Newton County. Backs: Don Cook, Forest Park; Jimmy Barber, Waycross; Matt Howard, Atlanta Northside.

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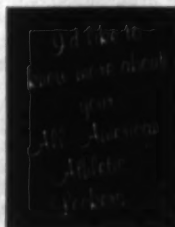
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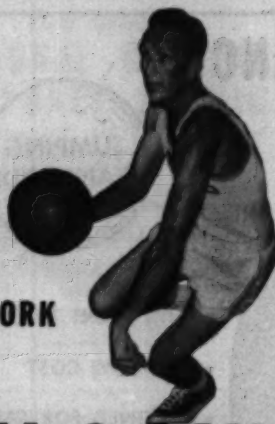
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Making Football Less Hazardous

FOR statistical purposes, the number of football fatalities are meaningless compared to other known accident data. Such comparisons show football to be much safer than other activities.

1. There are 236.5 deaths associated with motor vehicle accidents to ONE in football.

2. There are 337 deaths associated with drowning accidents to ONE in football.

3. There are 241 deaths associated with firearm accidents to ONE in football.

4. There are 75 deaths associated with fireburn accidents to ONE in football.

The American Football Coaches Association (college) offers the following recommendations to make football even less hazardous:

1. A five to ten minute warmup type of activity before allowing body contact in a practice of fundamentals,

a squad scrimmage, and entering a scrimmage or game.

2. More emphasis on developmental exercises for the shoulder and neck muscles.

3. At least six days of fundamentals before starting the season's first squad scrimmage.

4. At least three weeks of pre-season practice before the first scheduled game.

5. Spring practice for those not engaged in other games.

6. More complete medical examination and medical histories, with special attention to previous injuries.

7. A qualified sports physician on the bench at all scheduled games, and immediately available during practice.

8. Football helmets that can withstand high velocity blows.

With proper coaching, medical examinations, and equipment, football fatalities can be reduced to a minimum.

ATHLETIC TRAINING

PROPER nutrition, plenty of sleep and rest, graduated physical activity, and the avoidance of drugs constitute the chief factors in the training program. Without sound practices in these areas, no player can be at his best.

Following are some pertinent data on these components, as prepared by the National Federation in cooperation with the American Medical Association.

Diet. The average adolescent, because he's active and growing, needs more food than at any other time in his life.

The athlete needs more than average. The daily diet should include at least two servings of meat, fish, fowl, or eggs, and four or more servings of bread and cereals, milk and milk products, and vegetables and fruits. Fats and sugars will provide additional calories.

This simple diet pattern is easy for the coach to teach and for players to follow.

Sleep. The athlete needs more sleep than the average adolescent. His extra activity makes restorative rest imperative. While eight hours of sleep is a good average minimum, most athletes would be better off with nine. Slumps in performance may be caused by faulty sleeping habits.

Drugs. The U. S. Olympic Committee has recently ruled that any competitor using drugs, stimulants or other substances known as "dope" for any purpose will be disqualified. High school officials will applaud this action.

Vitamins, unless professionally prescribed, are a waste of money. They're not always harmless and cannot prevent colds or improve athletic performance in any way.

Smoking is irritating to the mucous membranes of the nose, throat, and other respiratory passages. It's known to constrict the small blood vessels and to increase heart rate. There's little doubt it can influence performance, particularly in stress situations.

Some persons appear to be more resistant to tobacco effects than others. Even assuming the effects on a particular athlete may be slight, that difference may spell the difference between winning and losing.

Activity. Progressive conditioning leads to increased economy of exertion. The voluntary muscles become stronger and more efficient in ridding themselves of fatigue products. The heart becomes more efficient in its pumping action and pulmonary ventilation is increased.

Other body systems also improve their functions. As a result, the athlete gradually becomes able to carry on more rigorous activity over a longer period and to perform moderate activity with less effort and fatigue.

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Niacin	9.5%	6.3%	7.3%	8.0%
Vitamin C	4.8%	3.6%	4.8%	4.8%
Vitamin B ₆	16.0%	16.0%	16.0%	18.0%
Protein	13.3%	9.5%	14.3%	14.5%
Iron	20.0%	16.0%	20.0%	20.0%
Phosphorus	19.0%	16.0%	28.0%	26.0%

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Sodium. Wheat germ is low in sodium. For this reason, it is recommended as a source of good quality protein for persons on sodium-restricted diets.

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The Mechanics of Pitching

(Continued from page 11)

bination. The angle of delivery marks the difference in them. Perhaps the prime consideration in adopting a particular style should be consistency of delivery; that is, throwing all of the different pitches with the same motion.

Whatever method is used, smoothness is desirable. Though ungainly moves and jerky actions are no serious deterrent, the motion should be smooth enough to allow a pitcher to fall into an easy, natural groove. All aspects of his pitching will be improved and, most important, his arm will be subject to less wear-and-tear.

Overhand pitchers generally throw a fast ball that rises and a curve which breaks down. The fast ball is released off the ends of the fingers with a full downward sweep of the arm, which passes close to the head. Added leverage can be attained by raising up on the toes.

Three-Quarters is halfway between overhand and sidearm and is the most prevalent in use. The curve ball breaks down and to the side. The action of the fast ball varies, rising when released off the ends of the fingers; moving in and down (the sinker) when released off the middle finger with an outward rotation of the wrist.

Sidearm pitchers throw a sinking fast ball, made more effective by rotating the wrist to the outside and releasing the ball off the side and tip of the middle finger. The curve ball is usually "flat." For this reason, plus the fact that the ball can be so well-hidden from the batter, a sidearmer is more effective against a batter who swings from the same side (righty vs. righty and lefty vs. lefty).

RELEASE AND FOLLOW-THROUGH

An important factor in achieving maximum stuff with minimum effort is getting the shoulder behind the pitch and leaning the weight into the delivery. For best results, the ball should be released in front of the pitching shoulder. It's the wrist action and release which are primarily responsible for imparting stuff to the pitch.

The follow-through is vital, if for no other reason than it signifies all of the other basic essentials have been performed correctly. The hand should reach a point below the knee opposite the pitching shoulder and the body should be bent sharply at the waist.

The finish of this sequence of action should find the pivot foot slightly ahead of the striding foot and the body in a crouch. To be squared-away properly for good fielding position, a short shuffle-step should be made with the striding foot, bringing it in line with the other one. The pitcher will then be

prepared to move quickly in any direction to field the ball.

There is a definite overlapping of these various phases, one flowing into the next in a continuous whole. The aspiring pitcher should go through these steps individually until each is perfected and then fit them together in one smooth pattern of action.

CONTROL

Control is the main essential in successful pitching. The prime requisite is, of course, to throw strikes consistently. Yet the best definition which can be given the term, control, is that it's the ability to put the ball close to the target with good stuff on it. The underlined words should convey the impression that merely getting the ball into the strike zone isn't sufficient in the long run, although it must, of necessity, be the pitcher's initial objective.

The only method of achieving good control is practice, practice, and more practice. With this in mind, rule number one is—have a definite target. A pitcher should pick out a specific target (not merely a general area in the strike zone), concentrate on it intently, and make a determined effort to hit his target on every pitch.

The catcher's glove is too obvious to be used against smart hitters. Fixed targets, such as the catcher's knees and shoulders, are recommended—with the proviso that the pitcher should use a target within the confines of the strike zone and that he should keep his eye on that target throughout his entire motion.

A great aid in improving control is pointing the striding foot directly at the target. The stride should be of moderate length, and landing on the heel should be avoided. The follow-through is vital because it maintains control right up to the last body movement of the pitching motion.

In short, control can be acquired by constant, systematic practice, applying the principles of the fixed target, the well-controlled stride, and similarity of actions (consistency of grip, finger pressure, foot position, etc.), since a fraction of an inch difference at the rubber can mean inches at the strike zone.

WILDNESS

When wildness is consistent, it can be corrected, usually by an alteration in bodily movements, which has the effect of adjusting the sights (shifting to either side of the rubber, changing the length of the stride, a full follow-through, etc.).

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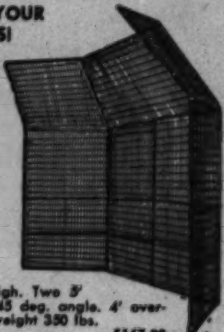
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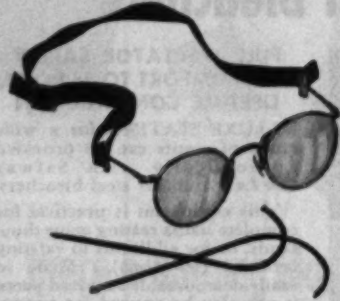
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If, on the other hand, a pitcher throws the ball "all over the place" with no regularity, he's releasing the ball differently on every pitch due to changing finger pressures. This is a bad situation which demands a complete change of style. Most cases of wildness, however, are of the consistent type and are caused by a flaw in the delivery which can be discovered and rectified.

The chief causes of wildness are: changing finger pressures on the ball, failure to concentrate on a fixed target, excessive rocking, throwing across the body, poor follow-through, overstriding, improper footing, poor physical condition, lack of self-control, and the tendency to aim the ball.

A pendulum-like motion in which movements are primarily backward and forward in relation to home plate is a boon to control. Excessive rocking moves the head and eyes, causing temporary loss of the target. A good method of steering the ball toward the target and at the same time not disrupting the pitching motion is to turn the body further in the direction in which the ball is intended to go.

With men on base, the pitcher should remember to look at his target with both eyes before delivering the ball plateward—he should never pitch from memory. Of equal importance, he should never ease up and aim the ball. This means that the ball is being held too long in an effort to point it; full energy will be lost and a natural motion ruined when the ball is aimed.

THE STRIKE-ZONE

A smart pitcher realizes how strongly percentages will work in his favor if he throws strikes. Even when he cannot overpower a batter, he's fully aware that the best of them hit safely only once in every three times at bat. Thus, if he gets the ball over the plate with good stuff on it, the law of averages is definitely on his side. When he can stay ahead of the hitter and then put the ball in the general area of that man's weakness, he'll be well on his way to real success.

The strike zone comprises an area which extends from the batter's knees to his armpits at any point above the 17" wide plate. The reasoning behind it is quite logical: it's that area in which the batter stands the greatest chance of hitting the ball. It follows that the nearer to the center of this zone a ball is thrown, the easier it is to hit, all other things being equal. Thus, the desirability of hitting the corners with a pitch or making the batter swing at a bad ball.

Next month the author will cover the three basic pitches (fast ball, curve, and change-up), fielding the position, working with men on base, and conditioning. As a supplement to this series, coaches are referred to the author's detailed survey of pitchers and coaches in the December 1958 issue ("The Big League Approach to Pitching").

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Teach Them to Hit

(Continued from page 7)

with indifference or even active resistance.

The coach may be unable to judge whether or not a hitter is comfortable in his particular stance. No one but the boy actually knows in what position he's most relaxed and ready to swing at the ball.

There's no set batting stance. Certainly the peculiar crouch of Stan Musial is far from orthodox. The generally accepted theory is that the only time a coach should attempt to change a stance is when the hitter has given up on himself and asks for help. At this time the boy is eager for instruction and is ready to accept all the advice the coach can offer.

However, we believe that a coach must change any stance that's distinctly poor, especially if the player has potential.

Another big weakness in high school hitters is a premature step with the front foot before the ball has left the pitcher's hand. You may be almost certain from this maneuver that the batter is afraid of the ball and is preparing to dodge in the event of a wild pitch.

A batter must learn to understand his fear of a hard, fast-traveling ball and learn to overcome it. If not, he'll have to be content with beating curve balls into the ground and weakly popping up change-ups.

If a coach can teach a high school batter to wait until the pitcher has released the ball before stepping, he'll have gone a long way toward teaching the boy to be a good hitter. Not only is this true of high school hitters, but of professionals right up into the big leagues.

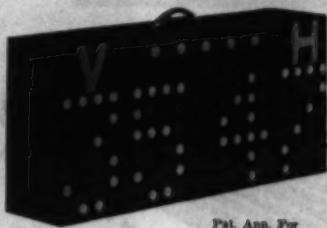
Practically all of the better hitters can hit the change-up. This is a clear indication of the validity of the "wait theory." The batter who strides or makes his initial move before the delivery is an easy sucker for the change-up and curve-ball artists.

DEVELOPING ATTITUDES

Oftentimes a batter will approach the plate with an air of indifference and apathy. There are many reasons for this attitude, but the most outstanding is a lack of confidence to hit the pitcher on the mound. Certainly this batter isn't really ready mentally or physically to do the job expected of him, and this type of hitter is most likely to be called out on strikes.

Here a coach must instill confi-

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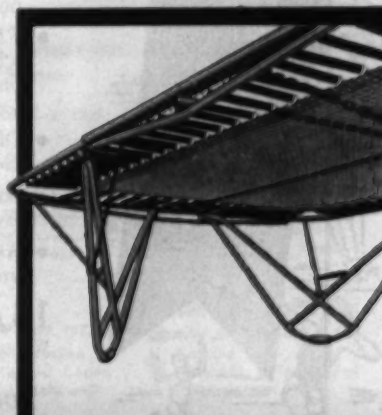
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dence and determination on every pitch. While it's true you should encourage players to hit good balls—that is, make the ball be in the strike zone—instructing the batter to swing at most pitches will stimulate him to always be prepared to hit.

By the time he has learned to distinguish a good pitch from a bad one, he will have acquired and developed the habit of being ready to take advantage of every pitch. This strategy will decrease the strike-out totals of some of the so-called outstanding pitchers.

One of the big reasons why pitchers have a tremendous advantage in high school baseball is that the hitters are not prepared. A batter will take two strikes and then in desperation swing at the next pitch regardless of its accuracy.

HITTING "YOUR" PITCH

High school hitters place themselves under another handicap when they fail to hit their pitch. If a batter has a two-and-nothing count, he should be ready for the big one down the middle.

In high school baseball, the chances are that the pitch will be a fast ball, and the batter should be looking for it. However, if the pitch is a strike but in a zone the batter doesn't like, he should let it go because he's ahead of the count and can sacrifice one strike.

Swinging at a two-and-nothing pitch just because it's a fast ball is a fault of which even major league players are guilty. (Of course, if the pitch is to the batter's liking, he should, by all means, swing at it.)

The same situation holds true on a three-and-one count. The pitcher must deliver a strike or walk his man. Once again, the batter may let it go if he doesn't like that particular pitch, since he's still ahead of the pitcher and is able to sacrifice a strike. Decisions will be governed by the score, batter, inning, runners, and pitcher.

CAN'T GET AROUND

All youngsters dream of becoming a great slugger like Babe Ruth or Lou Gehrig. As a result, they approach the plate with a 35-inch, 34-ounce bat and stand in the batter's box crouching it. Thus when the pitch is delivered, the boy is unable to get the bat off his shoulder.

Coaches should implore their hitters to choke the bat. Every effort

should be made to convince a high school batter that choking the bat doesn't necessarily diminish his power, but that it greatly increases his hitting potentialities.

Too many hitters use a bat which is too heavy. The weight of the bat should correspond to the strength of the batter.

Hugh Duffy, who still holds the major league record at .438, and Ty Cobb, one of baseball's immortals, are two examples of successful choke hitters. Coaches should use these facts to help convince their batters to use lighter bats and not try for the long ball all the time.

Smaller boys can help themselves a great deal by learning to hit the ball where it is pitched. Boys of lighter build simply cannot pull the outside pitch with any degree of success. Many small men are in the big leagues today because they're spray hitters.

High school hitters are also guilty of too much motion when the pitcher is about to deliver the ball. This extraneous motion of the head, the bat, and the hips is a hindrance to good hitting and should be eliminated or at least minimized.

ATTEMPTED BUNT

The hitter in a slump can use a technique often employed by professional players—the bunt. Big leaguers realize the psychology behind the move and are quick to take advantage of its possibilities.

Few high school hitters know how to bunt, and as a result feel that any attempt to do so would only mean an automatic out. Nevertheless, a batter should try to bunt occasionally, if for no other reason than to induce the first baseman and/or the third baseman to move a step or two closer to the plate.

This action will greatly increase the hitter's chances of bouncing a ground ball through the infield for a base hit—a hit which would have been a put-out had the third baseman or first baseman, whichever the case may be, been playing in his normal position.

Many baseball experts maintain that good hitters are born rather than made. We agree to some extent, but believe that a coach can develop a mediocre hitter into a good hitter by making him aware of his potentialities.

After the coach has instilled in the boy a genuine desire to want to learn to hit well, constructive advice, constant practice, and scrupulous attention to details are the necessary principles involved in successful batting records.

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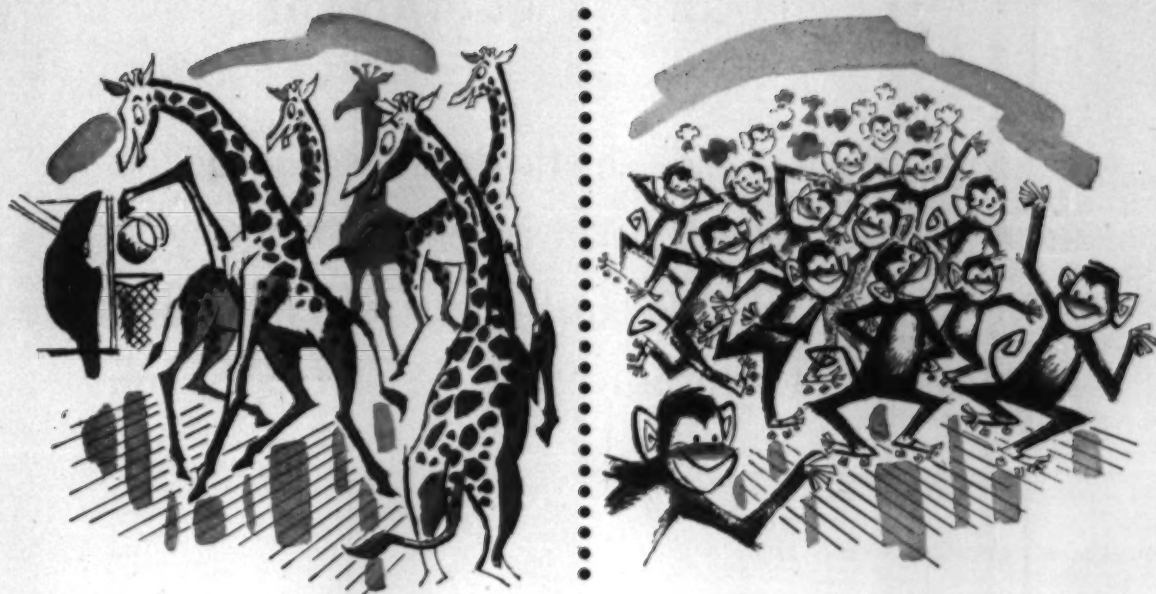
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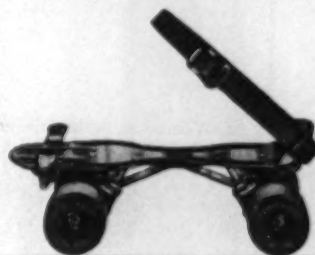
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